

'Greek' and 'Roman' in Latin Medical Texts

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‘Greek’ and ‘Roman’ in Latin Medical Texts

*Studies in Cultural Change and Exchange
in Ancient Medicine*

Edited by

Brigitte Maire



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Preface¹

The most rewarding undertakings are those that are shared. They are never solitary, but arise from encounters between real people, between scholars from the same and from neighbouring disciplines that enable us to explore new horizons outside existing academic boundaries. The complementary character of competences and approaches alike is the basis of ever fresh developments in the study of the history of medicine, providing new vistas, and it is to this end that this volume hopes to contribute.

Its publication has been made possible thanks to Brill Academic Publishers, especially Caroline van Erp, Tessel Jonquière, and Judy Pereira, as well as Philip van der Eijk, who welcomed it into the *Studies in Ancient Medicine* series. A special word of thanks goes to Klaus-Dietrich Fischer and Brigitte Coutaz for their support, advice and friendship.

The volume brings together twenty-one papers from a colloquium on Latin medical texts organized by me at the University of Lausanne from 3 to 6 November 2010. The papers read there were revised for publication and then reviewed by two successive editorial committees composed of international experts. The conference was supported by the Swiss National Research Foundation, the Chuard-Schmid Foundation, the Institute for Archaeology and Ancient Studies (IASA, Faculty of Arts, University of Lausanne) and the University's Institute for the History of Medicine & Public Health (IUHMSP, Faculty of Biology and Medicine and CHUV, the regional university hospital) for its generous contribution towards the costs of preparing this volume.

The participants came from a number of different disciplines within classical studies (Greek and Latin philology, ancient medicine, ancient philosophy, ancient history, anthropology, papyrology, epigraphy, iconography, and classical archaeology). Their personal points of view provided complementary perspectives on the theme of the conference: *At the Crossroads of Greek and Roman Medicine: Contributions to the History of a Transfer in Science and Culture*.

This colloquium was one in the well-known series of triennial academic conferences on Latin medical texts, inaugurated by Innocenzo Mazzini at Macerata almost thirty years ago. At the same time, it introduced two major innovations. The first was a workshop for doctoral candidates and young researchers, funded by the University Conference for Western Switzerland (CUSO, Conférence universitaire de Suisse occidentale), which allowed a number of junior scholars to present their research within the context of an international colloquium.

The second innovation was the decision to present the conference proceedings in English (the volumes from the previous conferences had been multilingual, with

¹ Translated by Beverly Maeder.

contributions in French, Italian, Spanish, English, German, and Latin). This decision was motivated by our desire to reach an audience as large as possible. We therefore hope that the readership of this volume will not be limited to philologists, but will also include many historians of medicine, physicians interested in the humanities, and non-specialist readers eager to gain a more profound understanding of ancient societies and the debates initiated then and there about the body, knowledge about the body, and its care and treatment.

Brigitte Maire

Introduction¹

Latin medical texts transmit practices and theories of medicine inherited essentially from Greece. They reflect processes of combination, assimilation, and transformation of knowledge. These processes provide a fertile context for a better understanding of the development of medical doctors, medical practice, and its underlying theories. The interest for all things living, both human and animal, saw a constant growth throughout antiquity and was accompanied by an ever-increasing willingness to learn more about the body in sickness and in health, about anatomy, pathology, and pharmacology.

Focusing on ancient medical texts allows us to perceive facets that shed much light on the contacts that took place between the Greek and Roman worlds, between two forms of thought that were distinct yet complementary all the same. The authors of this volume have paid particular attention to the history of ideas surrounding the body, ways of getting to know its functioning, the illnesses it was prey to, and the therapies going with them.

Although it is usual to speak of Graeco-Roman medicine, this volume focuses on Roman medicine as represented in medical literature written in Latin. Latin treatises on medicine relied in effect on works written in Greek, on elements of popular medicine transmitted orally and thus principally Roman in origin, as well as on personal experiences of the individual authors in their particular circumstances, whether as patients or as doctors, and whether as full-time or as occasional healers.

These processes of compilation involved original sources of many types and scopes. The diversity, even heterogeneity, of this material proved to be in no way an obstacle but a fertile basis for epistemological, lexical, and literary developments. It also provided a decisive impetus to Rome's cultural and intellectual flourishing, as Roman curiosity and interest were sparked by their encounter with practices, beliefs, and epistemological postures that were foreign to their own way of thinking; this caused them to transform these new views into their own brand of knowledge, making them part of their heritage.

The present volume aims at painting a clear picture of these different processes by grouping them into five thematic sections.

The first group, under the heading “**The Physician,**” contains three contributions: Véronique Boudon-Millot (Paris) explores the originality Galen demonstrated in considering the specificities of each of his patients (their origins, place in society, economic resources, intellectual level, customs). Using an approach founded on history, literature, anthropology, and iconography,

¹ Translated by Beverly Maeder.

Sébastien Barbara (Lille) attempts to show how doctors perpetuated their own memories. Pascal Bader (Fribourg) examines the identity, legal status, and origin of medical personnel and military doctors, especially in the context of the Roman army.

The second section, **“Medical Practice and Theory,”** brings together three contributions: Frédéric Le Blay (Nantes) studies Seneca’s Pneumatism in order to explain the complex relations that developed between medical and philosophical schools; Innocenzo Mazzini (Macerata) investigates what knowledge of medical literature non-medical Latin writers had; and Marie-Hélène Marganne and Magali de Haro Sanchez (Liège) present a collaborative study of medical papyri. The first part focuses on Latin medical papyri, which present an indispensable source of information about the medical practices of the Graeco-Roman world, about the relations that existed between the medical languages of Greek and Latin, and the preference that could be given to the one or the other. The latter compares an iatromagical papyrus with Greek iatromagical papyri as well as with Latin *formulae* of various origin.

The third section, headed **“Anatomy and Pathology,”** comprises two papers: Béatrice Bakhouché (Montpellier) studies Calcidius’ exegesis of Plato’s *Timaeus*, focusing on Calcidius’ portrayal of Greek ophthalmological theories and practices and Calcidius’ representation of his opponents, while Aurélien Gauthérie (Strasbourg) studies the place of pain in Celsus’ *De medicina* and the role of pain in the relationship between patient and doctor.

The fourth section, **“Pharmacology and Magic,”** consists of five contributions: Antoine Pietrobelli (Reims) investigates *Περὶ εὐφορβίου* (*On Euphorbion*), a lost pharmacological treatise that can be reconstructed on the basis of Greek and Latin testimonies. While most medical literature is in prose, Svetlana Hautala (Sienna) studies how Greek and Latin authors address their readers in pharmacological poems. She also considers the implications and function of writing in verse, with particular focus on the quantities of the ingredients of a remedy, and the process of memorization. Patricia Gaillard-Seux (Angers) identifies parallels and discusses the origins and sources of the twenty-seven magic *formulae* in Pliny the Elder. Valérie Bonet (Aix-en-Provence) examines the way Pliny the Elder treats the Greek sources he compiled on the subject of analgesic and narcotic plants such as the opium poppy, henbane, mandrake, and hound’s berry. Muriel Pardon-Labonnelie (Dijon) evaluates the influence of Greek ophthalmology on Roman eye treatments as documented in the corpus of collyrium stamps from Switzerland.

The fifth and final section, **“Language and the Establishment of the Text,”** consists of eight papers. The very size of this section reflects the predominantly philological approach represented in the colloquia on Latin medical texts. The

contributions concern the effects of translating Greek sources into Latin, with repercussions both on the lexical level (the creation of new Latin terms derived from transliteration; integrated loanwords; morphological calques; Latin equivalents employing paraphrases, whole phrases, or single words) and on formal aspects of the texts (exact correspondences, omissions, additions, modifications). Others treat questions related to the transmission of medical treatises (direct and indirect manuscript transmission). Thus Vincenzo Ortoleva (Catania) examines the meaning and etymology of the adjective *apiosus* in treatises on veterinary medicine. Serena Buzzi and Federico Messina (Turin and Palermo) study various passages of the Latin and Greek transmission of the *Corpus Oribasianum* stressing the importance of Latin translations predating the Greek manuscript tradition for the establishment of the Greek text. Alessia Guardasole (Paris) shows the importance of direct and indirect transmission for establishing the text of a passage from Scribonius Largus' *Compositiones*. Through an examination and interpretation of four passages from the same *Compositiones*, Sergio Sconocchia (Trieste) illustrates the author's "Greek-coloured" Latin. Manuel Enrique Vázquez Buján (Santiago de Compostela) analyzes the various modifications present in the ancient Latin commentary on Hippocrates' *Aphorisms* (shortening, rewriting, adding). Laura López Figueroa (Santiago de Compostela) argues for the use of the medieval treatise *Tereoperica* in order to establish the text of Cassius Felix's *On Medicine* and shows that, although the *Tereoperica* postdates Cassius Felix, it allows us to establish a text that is often more satisfactory than that transmitted otherwise. Gerd Haverling (Uppsala) studies the technical vocabulary used in the so-called Ravenna Latin translation of Hippocrates' *Aphorisms* and that used in the "Old Commentary." She shows that the two translators had different mother tongues and that this had specific repercussions on their lexical choices. And finally, Valérie Gitton-Ripoll (Toulouse) investigates the Greek and Latin sources of Book 10 of the *Mulomedicina Chironis*.

These contributions show that these Latin medical texts, which are the product of the integration of elements different in kind and cultural origin, will be of great interest to anyone interested in classical antiquity, in the history of the body, as well as in epistemological issues more generally, and in the methods used to transform medical practices into an organized system of knowledge.

Greek and Latin medical texts greatly enhance our knowledge of ancient societies, ancient cultures and modes of thought. The perspective they add is of great relevance to anyone desiring to understand the foundations of present-day medicine and culture.

Brigitte Maire

PART 1

The Physician



Greek and Roman Patients under Galen's Gaze: A Doctor at the Crossroads of Two Cultures

Véronique Boudon-Millot

Abstract

Born in Pergamum in 129 A.D., Galen received his first medical training in his native city and then continued his studies in Smyrna, Corinth, and Alexandria. He began his medical career in Asia Minor, treating peasants and performing surgery on the gladiatorial troupe that worked as slaves under the high priest upon his return to Pergamum in 157. Subsequently, he settled in Rome, where he lived most of his life and treated many prominent patients. The aim of this paper is to explore how Galen viewed his Asian and Roman patients and how he adapted his practice and medical procedures based not only on each patient's social and economic status, but on his or her intellectual acumen and customs as well, through proposing an intelligent and original synthesis of Asian and Roman lifestyles.

Born in Pergamum in 129 A.D. but essentially practicing most of his medical career in Rome, Galen is the perfect example of a doctor who straddled two cultures. As a faithful reader of Hippocrates, whose works he cites in a large number of his treatises, Galen received his first medical training in Asia Minor, initially in his native town, and then in Smyrna and Alexandria, where he studied under the region's leading professors.¹ Soon after, however, his burgeoning reputation and personal ambitions took him to the Empire's capital where he discovered a Roman world defined by different cultural practices and customs to which, he quickly understood, he would have to adapt in order to cater to his patients, rich or poor. Galen's success would also be largely attributed to his extraordinary adaptability and his capacity to differentiate his treatment between Greek and Roman patients.

※ Translated by Paige Mitchell, subsequently revised by Jon Wilcox. All translations from Greek are mine unless otherwise noted.

1 Regarding Galen's life, see Moraux (1985) and Boudon-Millot (2007: VII–XC).

Europe and Asia Minor: Two Regions, Two Cultures?

Galen was from an Asia Minor that Hippocrates had described earlier in *Airs, Waters, Places* (*De aere, aquis, locis*) as follows:

Τὴν Ἀσίην πλείστον διαφέρειν φημί τῆς Εὐρώπης ἐς τὰς φύσεις τῶν ξυμπάντων τῶν τε ἐκ τῆς γῆς φυομένων καὶ τῶν ἀνθρώπων. Πολὺ γὰρ καλλίονα καὶ μείζονα πάντα γίνεται ἐν τῇ Ἀσίῃ ἢ τε χώρα τῆς χώρας ἡμερωτέρῃ καὶ τὰ ἥθεα τῶν ἀνθρώπων ἡπιώτερα καὶ εὐοργητότερα (Hp. *Aer.* 12.2 [2.53 L.; pp. 219.15–220.5 Jouanna; pp. 105–107 Jones]).

I hold that Asia Minor differs very widely from Europe in the nature of its inhabitants and vegetation. Everything in Asia Minor grows to far greater beauty and size; one region is less wild than the other; the character of all its inhabitants is milder and gentler (trans. by W.H.S. Jones; slightly modified).

Galen, who was just as lucid as Hippocrates, describes Asia Minor in his grand treatise titled *On the Preservation of Health* (*De sanitate tuenda*) as the most moderate place in the world, particularly its central region, Hippocrates' native land.² Aside from being the cradle of medicine, Asia Minor was also the place where many medicinal substances had been discovered, such as those invented by the King of Pergamum Attalus III.³

Asia Minor was that magnificent oasis brimming with plants, animals, and minerals of all types, which were useful for the confection of innumerable remedies. Such a love for one's nation could leave us to fear that, by contrast, Galen might paint a very gloomy picture of the imperial capital. But this was not the case: Galen readily recognised certain characteristics of the city of Rome, such as the abundance of its fountains and the quality of its waters, a feature that it shared with Pergamum and even with the majority of cities in Asia Minor and Greece:

Καὶ γὰρ εὐπορία ψυχρῶν πηγῶν ἐν Ῥώμῃ πολλή καὶ χιόνος, ὥσπερ γε καὶ παρ' ἡμῖν ἐν Περγάμῳ καὶ κατὰ τὰς πλείστας τῶν ἐν Ἀσίᾳ τε καὶ κατὰ τὴν Ἑλλάδα πόλεων (Gal. *De comp. med. sec. loc.* 2.1 [12.508 K.]).

² Gal. *De san. tuenda* 2.6 (6.127.2–3 K.; p. 56.32–34 Koch).

³ Gal. *De comp. med. per gen.* 1.13 (13.416 K.).

There is a large number of fresh-water springs and snow in Rome, similar to what we have in Pergamum and in the majority of cities in Asia Minor and Greece (trans. by May).

In fact, Rome offered physicians a significant advantage over Pergamum since it provided an exceptional field of observation. Galen was very aware of his good fortune as he had the opportunity to observe a few rare cases that not even Hippocrates had studied. This was precisely because he lived in a large, highly populated city like Rome.⁴ Our inevitably quick comparison of the merits of Rome and Asia Minor is, therefore, far from detrimental to the Roman capital. The variations in climate described by Galen between Rome and Asia Minor, which played such an important role in the difference in the body's constitution, were themselves rarely emphasised and, all things considered, only marginally influenced the differences observed between Greek and Roman patients. In truth, the divide seemed to lie more between an almost exclusively urbanised Roman region and a predominantly rural province in Asia Minor. In other words, the transition Galen made went from treating peasants, or even gladiators, in Asia Minor to learning how to treat a predominantly urban population of masters and slaves once he arrived in Rome. Before Galen, Hippocrates, in his *Airs, Waters, Places* (*De aere, aquis, locis*), clearly demonstrates how illnesses not only vary in relation to season, the patient's environment, and the places he or she frequents, but also in terms of the nature of the patient, gender, and age. To this Galen adds his own sensibility and exceedingly acute perception of culture and Roman refinement in order to develop, in turn, different treatments for different patients. Thus, in Galen's eyes, the lifestyles of master and slave, who both frequented the *palaestra* and lived under the same roof in Rome, had more in common than Roman slaves and Asian peasants, who were unfamiliar with the *gymnasia* and only knew *erga* (or farming).⁵ Therefore, the differences in treatment between his Roman and Asian patients were first and foremost based on differences in lifestyle.

4 See for example Gal. *In Hipp. Artic. comment.* 1.22 (18a.346–348 K.), in which Galen notes that Hippocrates himself knew of and described only one type of shoulder dislocation, when the humerus (actually, the head of the humerus) slides toward the armpit, whereas Galen, because he had seen examples in Rome, can pride himself on knowing several other kinds of dislocations, which differ each one from the next, depending on the severity, like when the joint is dislocated toward the front. For other examples, see Boudon-Millot (2008: 71–80).

5 See Mattern (2008a: 131).

Gladiators and Asian Peasants

What distinguished Greek patients from Roman patients was essentially their customs, which inevitably implies “habit” (τὰ ἔθνη), two parameters that the doctor unquestionably would have had to take into account. Galen’s Asian patients during medical school and those during his first years of practicing medicine would have very little in common with his future Roman patients. Apart from illnesses that affected some of his fellow students during the formative years, his earliest patients were primarily peasants, and a little later on, when he was commissioned by the high priest of Pergamum, gladiators. In both cases, trauma-related pathologies were the most frequent, with the occasional grave injury. For instance, Galen treated a gladiator who suffered a severe abdominal wound. In this situation, Galen comments:

[Τὸ καλούμενον ἐπίπλοον]...εἰς ἀνάγκην ἀφαιρέσεως τοῦ βεβλαμμένου μέρους κατέστησε τοὺς ἰατρούς...ὥσπερ δὴ καὶ ἡμεῖς ὀλίγου δεῖν ὄλον ἀπεκόψαμεν αὐτό, μονομάχου τινὸς οὕτω τρωθέντος· ὁ δ’ ἄνθρωπος ὑγῆς μὲν ἐγένετο διὰ ταχέως (Gal. *De usupart.* 4.9 [3.286–287 K.; I, p. 210 Helmreich])

The physician should remove the injured section . . . like we ourselves did when we performed a virtually complete omentectomy on this area of the gladiator’s body. The man had a quick recovery (trans. by May).

However, as Galen explains earlier, because the fat of the epiploon serves as a way of keeping the stomach warm and promoting coction, the patient remained very sensitive to the cold in this region of the stomach. It was a risky operation, a last attempt, which called for heavy surgery that Galen would prudently abstain from performing later on in Rome.

Apart from gladiators, another widely represented group of patients in Asia Minor were peasants.⁶ In his writings, Galen does not differentiate between the term ἀγροῖκος (“man who lives in the countryside, countryman”) and γεωργός (“farmer, simple peasant or proprietor of a plot of land in the countryside”) when referring to this group. During his childhood, Galen travelled across the countryside and reported that his father owned a large farm where he often stayed.⁷ Later, his academic travels would take him to other regions of

6 Even if not all the peasants that Galen mentions in his works are “Asian,” they do represent the majority.

7 Gal. *Antid.* 1.3 (14.17 K.) illustrates this father’s love for working in the fields, adding that his father even invented a new way of conserving wine, see Jacques (1996: 176).

Asia Minor like Smyrna and Alexandria or even Cyprus where rural communities lived and where he willingly set out in search of rare plants and minerals necessary to make numerous drugs. It is important to note that once he set out for Rome, and despite spending his summers in Campania, where we now know (since the rediscovery of the treatise entitled *On the Avoidance of Grief*) he owned a house in the country, he had little opportunity to treat peasants.⁸

The peasants of Asia Minor had their own distinct customs and practices, and it was important for the physician to be informed of these aspects. Galen himself, still a young boy, endured a wretched experience. He recounts the tale in his *On the Powers of Foods* (*De alimentorum facultatibus*): he and two other friends, while away from Pergamum, found themselves utterly famished and happened upon a group of peasants who had just finished a meal. The peasants offered them some wheat that was boiling in a pot to appease their hunger without waiting for the women to finish preparing the bread. The gruel proved to be rather difficult for Galen and his comrades to digest, and they suffered stomach aches, migraines, and flatulence until the following day. Upon returning, Galen asked the peasants if the same thing had happened to them when they ate boiled wheat and how they felt afterwards. The peasants confirmed that, when faced with the need to appease one's hunger, they would occasionally eat boiled flour before the bread was finished, and it was, indeed, difficult to digest. Galen concluded that, if one was able to digest it like those who consumed it regularly, this preparation was remarkably nourishing and invigorating.⁹ Whether the peasants were mocking him or telling the truth, Galen concluded from the adventure that peasants had a phenomenal digestive that he and his companions lacked. He also learned that this dish was to be reserved for hardier stomachs than his or that of the typical Roman.

A little further on in the same treatise, Galen refers to a highly refreshing beverage prepared in the summer by another group of peasants consisting of barley flour mixed with various types of wine (sweet wine, sweetened wine, and wine mixed with honey) and a little bit of water. Galen adds: "In some countries, they use barley flour for bread-making, as I saw in the countryside in Cyprus, and yet mostly they cultivate wheat," which implies that they could make bread. Galen adds, however, that the preparation is awful:

8 Gal. *De indolentia* 10 (p. 4, 22 Boudon-Millot/Jouanna); 11 (p. 5, 8 Boudon-Millot/Jouanna); 20 (p. 8, 16 Boudon-Millot/Jouanna); 23a (p. 9, 9 Boudon-Millot/Jouanna) et 28 (p. 10, 20 Boudon-Millot/Jouanna).

9 Gal. *De alim. facult.* 1.7 (6.498–499 K.; p. 226–227 Helmreich).

Οἱ παλαιοὶ δὲ καὶ τοῖς στρατευομένοις ἄλφιτα παρεσκεύαζον· ἄλλ' οὗτοι γε νῦν τὸ Ῥωμαίων στρατιωτικὸν ἄλφιτοὺς χρήται, κατεγνώκως αὐτῶν ἀσθένειαν· ὀλίγην γὰρ τροφήν δίδωσιν τῷ σώματι, τοῖς μὲν ἰδιωτικῶς διακειμένοις καὶ ἀγυμνάστοις αὐτάρκη, τοῖς δ' ὅπως οὖν γυμναζομένοις ἐνδεῇ (Gal. *De alim. facult.* 1.11 [6.507 K.; p. 232 Helmreich]).

Elderly folk used to prepare barley soup for the soldiers, but nowadays, the Roman army does not eat barley meal, because they have come to realise that it slows them down. And, in fact, it provides the body with very little nourishment: sufficient perhaps for the ordinary individual who does not exercise, but inadequate for those who perform any type of physical training (trans. by Powell; slightly modified).

If Galen deemed this information about the eating habits of Cyprus peasants of some use, it was because he was criticizing this custom, affirming the supremacy of the Roman mind, which knew to abstain from this type of diet.

In general, the Asian peasants that Galen met throughout his life lived in a world of desolation and deprivation of both food and medicine, contributing to their deplorable state of health. Many of them suffered from all sorts of lingering plagues and tumors that had been neglected for much too long to be treated. The destitution and isolation that some of his patients endured would even force the doctor to invent new solutions and treatments for their specific cases. Galen recounts in his *On the Composition of Drugs According to Kind* (*De compositione medicamentorum per genera*) how he came to treat a nerve injury while in the country. Far from home and without the recommended drug for this type of case (euphorbia) at his disposal, he came up with the idea of replacing the standard remedy with fresh, moist, greasy propolis that the peasant had on hand.¹⁰ Galen alternated yeast-only poultices and poultices containing a blend of propolis and yeast and skilfully cured the patient. For a similar case, he applied a poultice made from a mixture of yeast and tithymalus sap (spurge) that he had seen growing beside the peasant's yard, and his makeshift treatment was successful once again.

In his *On the Powers [and Mixtures] of Simple Drugs* (*De simplicium medicamentorum temperamentis et facultatibus*), in a chapter dedicated to goat excrement (περὶ αἰγείας κόπρου), Galen reports the case of a peasant who had a tumor in his knee. The doctor treated it by recommending the use of a mixture of goat excrement and oxycrate (a mixture of water and vinegar) added to

10 Gal. *De comp. med. per gen.* 3.2 (13.582–83 K.). Regarding euphorbia, see the contribution made by A. Pietrobelli in this publication.

wheat flour, ingredients which are available to all and the diametric opposite to the oils and expensive perfumes used by the high-society women of Rome. Even Galen was surprised at the success of his treatment.¹¹ Goat excrement would also do wonders for a peasant who suffered similar tumors, not only in the knee but also on other parts of the body. Once again, Galen underlines their effectiveness in treating ailments that called for cleansing drugs, including all types of skin diseases, 'lepra' (a type of skin disease, not to be confused with leprosy), scabies or scabs, or, even more surprisingly, alopecia, a disgraceful ailment to which the peasants of Asia Minor should have been less susceptible than the wealthy Romans. Further on, Galen makes reference to a rural doctor (ιατρός τις τῶν ἐν ἀγροῖς τε καὶ κώμας ἰατρευόντων), who had the idea of using a vinegar mixture for snake bites, which proved to be triumphant as well. This same doctor administered goat excrement with wine to a patient suffering jaundice, and treated a peasant woman's menstrual haemorrhaging using a poultice made from blending goat excrement and incense. Upon concluding this list, Galen does acknowledge that it would be inconceivable to propose such treatments as those based on animal excrement to his more refined Roman patients:

Καὶ χρή γινώσκειν μὲν ἅπαντα τὰ τοιαῦτα τὸν ἄριστον ἰατρόν, ἐκλέγεσθαι δὲ τὰ βελτίω, καὶ μάλιστα ἐπὶ τῶν ἀστυκῶν τε καὶ ἀξιολόγων ἀνδρῶν, ἐφ' ὧν οὐκ ἂν ποτ' ἐχρησάμην ἐγὼ τοιούτῳ φαρμάκῳ παμπόλλων ἀμεινόνων εὐπορῶν· ὅμως δ' οὖν γίγνεται ποτε καὶ τῶν τοιούτων ἢ χρεῖα κατὰ τὰς ὁδοιπορίας καὶ τὰ κυνηγέσια καὶ τὴν ἐν ἀγρῷ διατριβήν, ὅταν τι μὴ παρῇ τῶν βελτιόνων, ἢ καὶ σκληρόσαρκος ὁ ἀγροῖκος ἄνθρωπος ᾗ, παραπλήσιος ὄν· πολλοὶ γὰρ τῶν τοιούτων κατὰ τοὺς ἀγροὺς εἰσὶν ἄξιοι τοῦ πίνειν σπύραθα (Gal. *De simpl. med. temp. ac fac.* 10.22 [12.299 K.]).

An excellent physician must be very familiar with all remedies of this type, but must know how to select the best, particularly with distinguished city patients, with whom I wouldn't know where to begin to make use of such a drug, since I have access to so many other better medications. However, occasions could arise in which one may need to resort to such forms of medicine [i.e. excrement-based remedies], for instance, while travelling abroad, on a hunting trip, or during a simple outing in the countryside, when the best drugs are not available or when the patient is hardy and thick-skinned, like the peasants who live in the countryside who are able to ingest excrement.

11 Gal. *De simpl. med. temp. ac fac.* 10.22 (12.298 K.); καὶ θαυμαστῶς ὁ ἄνθρωπος ὤνητο.

This passage clearly demonstrates the divide mentioned earlier between a rural population living primarily in Asia Minor, which possesses certain customs, and an urban population set in Rome, whose lifestyle and practices are radically different. Galen, however, does not criticise these tough-skinned patients who can ingest excrement. In fact, quite the contrary: he applauds the extraordinary fortitude of these country-folk, who would even propose amputation as an option in extreme circumstances, as was the case of a peasant who suffered from a snake bite:

Ἄλλ' ὅμως ἐπὶ τῆς Ἀλεξανδρείας ὄντος μου, δηχθεὶς τις ἄγροικος οὐ πόρρω τῆς πόλεως ἓνα τῶν κατὰ τὴν χεῖρα δακτύλων, ἔδησέ τε δεσμῷ σφοδροτάτῳ τὴν πρὸς τῷ μετακαρπίῳ ῥίζαν αὐτοῦ, καὶ δραμῶν ἐπὶ τὴν πόλιν πρὸς ἰατρὸν συνήθη, παρέσχεν ἀποτεμεῖν ὅλον τὸν δάκτυλον ἀπὸ τῆς εἰς τὸ μετακάρπιον διαρθρώσεως, ἐλπίζων ἐκ τούτου μηδὲν πείσεσθαι· καὶ μέντοι γε καὶ προυχώρησεν αὐτῷ κατὰ τὴν ἐλπίδα, διεσώθη γὰρ οὐδὲν ἄλλο πραγματευόμενος ἔτι (Gal. *De loc. aff.* 3.11 [8.197 K.]).

While I was in Alexandria, a peasant who had been bitten on the finger not far from the city had tightly cinched the base of his finger close to the metacarpus with a piece of string, and went running to the city to his regular doctor to have the entire finger chopped off at the joint in hopes to avoid any further complications. And, in fact, things played in his favour, since his life was saved and no other treatments were needed.

There were other cases in which patients had had the courage to amputate a part of their body to save themselves from impending death:

Καὶ μέντοι γε καὶ ἄλλον ἐθεασάμην ἄγροικον, ὅλον τὸν δάκτυλον ὑπὸ ἐχίδνης δηχθέντα, δρεπάνῳ μέν, ὃ τότε εἶχεν, ἦν γὰρ ἀμπελουργός, ἀπὸ τῆς ὑστάτης διαρθρώσεως ἀποτεμόντα τὸ δεδηγμένον μέρος, ἄνευ δὲ πόσεως φαρμάκου διασωθέντα, τοῦ δακτύλου κατουλωθέντος ὑπὸ τῶν συνηθῶν φαρμάκων (Gal. *De loc. aff.* 3.11 [8.198 K.]).

I saw a peasant who, bitten by a snake the entire length of his finger, cut the bitten section at the last joint with a sickle, which he was holding in his hand given that he was a winegrower. He recovered without taking any medication and the finger healed naturally.

Despite being educated in Asia Minor according to the most extreme medical practices, Galen felt he had to distance himself from this initial training immediately upon his arrival in Rome, and quickly became conscious of the need to adapt his art to the Roman realities of life.

Wealthy and Cultivated Intellectual Romans

Galen was admittedly not the first Greek physician to set foot in the imperial capital to seek his fortune. Without going as far back as Archagathus (third century B.C.) and his legendary cruelty of “slashing and burning,” leading to the nickname “The Executioner,”¹² Galen makes reference to one of his most immediate predecessors: Doctor Xenocrates. He says Xenocrates lived slightly earlier than him, at the time of his grandparents, and, while the imperial authority prohibited cannibalism, he prescribed to his patients human brains, flesh and liver, charred bone and blood, and, in general, the most repugnant substances that exist: sweat, urine, menstrual blood, excrement, sperm, and so on.¹³ Andromachus, on the other hand, was more successful at coming up with more widely accepted remedies. Recognized as Nero’s physician (first century A.D.) and the inventor of the theriac, Andromachus “had practiced as a doctor in Rome and employs of all measures used in the city [in his writings].”¹⁴ Quintus, whom Galen highly revered and considered the best physician of his generation, was more ambiguous. Prey to the hatred of his colleagues, who were jealous of his first successes, he was thrown out of Rome under the accusation of killing patients.¹⁵

When Galen first arrived in the imperial capital, he discovered a completely unfamiliar universe dominated by the reign of money, scorn of intellectuals, contempt for the arts and sciences, and general distrust, which quickly morphed into jealousy or hatred towards any physicians who would dare to produce successful prognoses. But he did surpass his incompetent colleagues, who accused him of witchcraft in an attempt to force him into exile and even

12 Plin. *Nat.* 29.13: *a saeuitia secandi urendique transisse nomen in carnificem.*

13 Gal. *De simpl. med. temp. ac fac.* 10.1 (12.248 K.). The law to which Galen refers here was perhaps one of a set of laws that was aimed at the first Christians, who were frequently accused of cannibalism.

14 Gal. *De comp. med. sec. loc.* 6.6 (12.932, 4–7 K.). Regarding this reference to Andromachus and his capacity to assimilate and adopt the Roman weight and measurement system, see Boudon-Millot (2008: 71–80).

15 Gal. *De praecogn.* 1 (14.602 K.; p. 70.23–25 Nutton).

threatened his life. It should be told that Galen did not waver when presented with the need to resort to a *topos* and employed a Greek word to reproach the shortcomings of the Romans, condemning them for being at the root of all evil: “The cause of all wrongdoing in human society lies in the materialism (ἡ τρυφή) of the rich and powerful who inhabit the city” (trans. by Nutton) and whose only pursuit is “pleasure” (ἡδονή), ranking it ahead of virtue (ἀρετή), Galen writes in his *On Prognosis* (*De praecognitione ad Epigenem*).¹⁶ These people, he continues, place statues of dancers and charioteers on the same plain as those of the gods. They do not show any consideration for the arts except for the benefit or utility they can gain from them. They only use geometry and arithmetic to measure the growth of their profits, and astronomy or fortune-telling to foresee how much money they will earn in the future. As for philosophy, they see it as a complete waste of time, precisely “like boring holes in millet seed” (trans. by Nutton). Galen concludes: “I was completely ignorant of this the first time I visited Rome” (trans. by Nutton).¹⁷

But the young Galen quickly learned how to adapt his medical practice to Roman customs, because he was not interested in simply repeating the advice given by his Greek and Latin predecessors. Coming after physicians like Hippocrates and Heraclides of Tarentum, who recommended modifying patient treatment based on age, sex, and patient sensitivity,¹⁸ or even following Celsus, who underlined the need that “each person have knowledge of their physical nature” in order to adapt their diet more effectively,¹⁹ Galen, in turn, would apply himself to adapt his therapies according to the patient’s social status and cultural practices, in addition to these criteria.²⁰ Thus, for delicate treatments following trepanations, for instance, instead of the very gentle and calming method that the majority of doctors employed, Galen implemented a more radical method based on pharmaceutical preparations with a powerful drying action, originally recommended by Meges of Sidon. Galen cites an example of “one of his fellow countrymen from Pergamum, who would invariably employ this form of treatment, often applying something called ‘Isis’ as a plaster directly on the meninges once they were exposed, and oxymel on the

16 Gal. *De praecogn.* 1 (14.604 K.; p. 72.22–23 Nutton).

17 Gal. *De praecogn.* 2 (14.605 K.; p. 74.12 Nutton).

18 For examples of differential therapy based on age according to Heraclides of Tarentum, see F 43 (Guardasole [1997: 181]) regarding the dislocation of the femur, for which the best results in reduction is obtained in children rather than adults, or see F 7 (p. 113 Guardasole) regarding the composition of a plaster that, for sensitive skin, must include softer substances in the place of more irritant substances.

19 Cels. 1.3.13.

20 See Boudon-Millot (2005).

outer surface. He was an old man who was quite experienced in this type of practice within the art of medicine.” He adds:

Οὐ μὴν οὔτε ἄλλον τινὰ χρώμενον εἶδον, οὔτε αὐτὸς ἐτόλμησα χρήσασθαι. τοσοῦτο μόνον ἔχω μαρτυρεῖν τῷ Εὐδήμῳ, τοῦτο γὰρ ὁ πρεσβύτης ἐκαλεῖτο, ὡς ἐσώζοντο μᾶλλον οἱ ὑπ’ ἐκείνου θεραπευόμενοι τῶν παρηγορικῶς ἀγομένων. ἐπεχείρησα δ’ ἂν ποτε καὶ αὐτὸς δι’ ἐμαυτοῦ πειραθῆναι τῆς τοιαύτης ἀγωγῆς, εἰ διὰ παντὸς ἐν Ἀσίᾳ κατέμεινα· διατρίψας δ’ ἐν Ῥώμῃ τὰ πλείστα τῷ τῆς πόλεως ἔθει συνηκολούθησα, παραχωρήσας τοῖς χειρουργοῖς καλουμένοις τὰ πλείστα τῶν τοιούτων ἔργων (Gal. *De meth. med.* 6.6 [10.454 K.; II, p. 232–234 Johnston/Horsley]).

Nevertheless, I have never seen anyone else use it, nor would I even dare. I can only testify in favour of Eudemus (as the old man was called) that a greater number of his patients would recover successfully than those treated by the calming method. And I too would have undoubtedly attempted to apply this treatment eventually, had I stayed in Asia Minor, but once I moved to Rome, by and large, I stuck to the treatments offered in the city, and I left most of these types of operations to those known as surgeons.

According to Galen's remarks above, intrusive interventions were apparently to be reserved for surgeons, implying that various tasks within the medical profession were distributed differently in Rome and in Asia Minor. Proof of this is Galen's comment “those known as surgeons” as though the eastern region of the Empire were unfamiliar with the discipline.

Galen would also have to learn how to compose with the personality of the wealthy Romans, who prided themselves on being familiar with medicine and thus, took the liberty to discuss medical diagnoses, subsequently arousing controversy. In his *On Recognising the Best Physician*,²¹ Galen recounts how a young wealthy man, at the bedside of one of his patients and surrounded by a host of sycophants, attempted to ridicule Galen by mocking his diagnosis: a combination of two tertian fevers. The young man could not possibly have heard of this type of illness because the medical curriculum didn't include literature on combined fevers.²² But, Galen soon had the satisfaction of seeing his diagnosis corroborated:

²¹ The Greek text having been lost, we have consulted the Arabic version (Iskandar [1988]).

²² Gal. *De opt. med.* 8.5–8 (p. 94–96 Iskandar).

The youth pricking up his ears like an ass when it is scared (trans. by Iskandar).

A worse example is when ignorant doctors, to please their patients, reduce themselves to the level of slaves by prescribing not what would be the most useful, but rather the most pleasant.²³

Conversely, the medical training that many Roman and profoundly Romanised provincial doctors acquired occasionally provided them with select allies. For example, Galen was solicited by a certain Caecilianus, whom he met in Rome, to send him instructions by letter to treat his epileptic son before his return to Athens. Despite his reluctance, Galen would finally consent to what was asked of him: first out of kindness and second because Galen saw in Caecilianus a cultivated man, who, though inexperienced in medicine, had “learned to consult medical literature according to the rules of the art” (τῷ νομίμως μεμαθηκότι τοιούτοις ὁμιλεῖν ὑπομνήμασιν). Caecilianus’s education in logic seemed, particularly to Galen, to be a serious enough pledge for him to be able to get some benefit from the letter that he wrote for him.²⁴

On Theriac to Piso (*De theriaca ad Pisonem*) brings to the stage a certain Piso who, despite his political responsibilities, found the time to study the ancient philosophers and to read medical treatises.²⁵ Similarly, when Galen was called to the bedside of his young son who suffered from a severe perineal wound from riding on horseback for many hours during the *Lusus Troiae*, his son knew he could count once again on his father’s attentive and effective care:²⁶

Εἴ ποτε γάρ τι καὶ τῶν ἐπιθετιμένων ὑπὸ τοῦ θεραπεύοντος φαρμάκων ἀτόπως ἔκειτο, τοῦτο τοῖς σαυτοῦ δακτύλοις μετετίθεις τε καὶ δεόντως ἤρμοττες τῷ τραύματι, ὡς θαυμαστὸν εἶναι δοκεῖν, ἐκ τῆς περὶ τὸν υἱόν σου στοργῆς καὶ τῆς φυσικῆς ἐντρεχείας, αἰφνιδιὸν σοι οὕτω τῶν χειρῶν ἐνδεικνυμένων ἀκριβῆ τέχνην ([Ps.-?] Gal. *De ther. ad Pis.* 1 [14.213 K.]).

Indeed, each time the nurse applied a treatment to be administered in the wrong place, you would move it with your fingers and spread it properly over the wound, in such a way that the suddenness with which your

23 Gal. *De opt. med.* 5.17 (p. 76–78 Iskandar).

24 Gal. *Puer epileptico consil.* 1 (11.360 K.).

25 (Ps.-?) Gal. *De ther. ad Pis.* 1 (14.210–211 K.).

26 I recommend reading *περίνεον* instead of *περιτόναιον* (14.212.11 K.). The scene apparently takes place in 204.

hands performed this display of such a refined art seemed to be a true miracle thanks to the affection you feel for your son and your natural dexterity.²⁷

Without underestimating the role of flattery, which underlies the story, it is clear that the medical training his most cultivated patients had received allowed Galen to implement a form of medicine that was more effective, better adapted, and thus afforded the best chances of success.

To our surprise, however, there were cases in Rome when Galen found himself forced to use remedies that call to mind the excrement-based treatments administered to peasants in Asia Minor. This was so in the case of a high-society woman from Rome who, panic-stricken, suffered from hemoptysis and sent for Galen, declaring that she would be willing to do "anything he wanted." As Galen clearly explains, this patient had overheard "that unless a radical treatment was administered before the wound became inflamed, there was nothing one could do." Galen arrived at the patient's home, decided not to perform bloodletting on the patient, who had not eaten in four days, recommended administering an enema and vigorously rubbing the legs and arms, and then, after shaving her head, he applied "a remedy made from wild pigeon droppings." Galen allowed three hours to pass and then he brought the patient to the bathroom, and then washed her entire body except for the head, which he protects with a cap and prescribes a light diet (gruel with dried fruit) and theriac (for its warming and drying properties). The fourth day, he administered theriac once again and the fifth day, at intervals, "the usual wax made from thapsia." Subsequently, the woman was cured.²⁸ As we have seen, however, pigeon-dropping-based treatments were not commonly used, and Galen only implemented it in very specific emergency situations or upon the explicit request of the patient, who, in this case, was a woman from Rome's high society who declared that she had full confidence in his ability and placed herself completely in his hands. The patient's utter surrender to the physician's dictate obviously gave him permission to use this slightly more rustic treatment. As a matter of fact, it is probably not entirely inconsequential that the patient was a woman, in that excrement-based remedies were only prescribed to women (as noted in the *Hippocratic Corpus* as well).²⁹

²⁷ Case studied by Gourevitch (2001: 69–71).

²⁸ Gal. *De meth. med.* 5.13 (10.369 K.; II, p. 96 Johnston/Horsley).

²⁹ As von Staden nicely illustrated (1992: 7–30).

Moreover, women embodied the luxury and softness (τρυφή) that Galen would have to learn to take into account.³⁰ Despite his reluctance, he probably would have to settle eventually for expensive perfumes to treat some diseases, such as stomach-related illnesses and, in particular, “indigestion” (ἀπεψία); a pathology that was undoubtedly more widespread amongst wealthy Romans than the undernourished peasants of Asia Minor. Thus, Galen recommended applying a lukewarm wet cloth dipped in different substances (oil, rubber, and spikenard), particularly lentisk rubber (τὸ μαστίχινον), on the stomach:

Οὐχ ἥκιστα δὲ καὶ τὰ τῆς τρυφῆς ἔνεκα τῶν διατεθρυμμένων γυναικῶν σκευαζόμενα μύρα ταυτὶ τὰ πολυτελῆ χρήσιμα πρὸς τὰς τοιαύτας διαθέσεις τῆς γαστρὸς, ἅπερ ἔοικεν ὑπὸ τῆς ἐν Ῥώμῃ τρυφῆς εὐρεθέντα καὶ τὰς προσηγορίας ἔχειν Ῥωμαϊκάς· ὀνομάζεται γέ τοι σπικάτα γε καὶ φουλιάτα (Gal. *De meth. med.* 8.5 [10.574.1 K.]).

And those expensive perfumes, prepared for the pleasure of women who lead a material lifestyle, have not proven to be less effective against such stomach conditions. And because these perfumes were discovered, so it seems, thanks to the materialism that currently prevails in Rome, they have been given Roman names, specifically *spicata* (σπικάτα) and *foliata* (φουλιάτα).

Behind this subtle criticism of the Roman way of life (which had no equivalent in Asia Minor, where no one had ever even heard of such perfumes), shined the doctor's capacity to integrate all resources into his pharmaceutical arsenal that the Empire's capital provided, despite the fact that there were no Greek words to refer to them.³¹ Moreover, it appears that Galen acknowledged the notion that the materialism of the times could, in fact, draw remedies for its own ail-

30 It is important to remember that of the hundreds of cases that Galen reported, only about twenty-five cases involved female patients and another twenty-five children patients, see Nijhuis (1995) and Mattern (2008b:116).

31 The Latin word *foliatum* refers to a perfume (or ointment) made from spikenard leaves. This has been proven notably by Plin. *Nat.* 13.15: “*Foliatum* or spikenard perfume consists of *omphacium* or ben oil, fragrant bulrush, costus, spikenard, amomum, myrrh and balm”; also see Iuu. 6.465; Mart. 12.27.9 and Mart. 14.110.2. There was a distinction between *foliatum* the spikenard ointment (taken from the leaves) and *spicatum* (taken from the spike). Also see Gal. *De loc. aff.* 4.11 (8.292.4 K.), in which Galen recommends inhaling *spicata* and *foliata* in the case of respiratory diseases. Daremberg (1856: 623) refers to these words in his French translation as *foliatés* and *spicatés*.

ments from itself, thus testifying to his level of tolerance, much greater than Pliny's, when he severely criticises, for instance:

Ceromata ceu ualetudinis causa instituta, balineae ardentēs quibus persuasere in corporibus cibos coqui (Plin. *Nat.* 29.26).

Wax and oil ointments for the purposes of hygiene and scalding hot baths to improve digestion.

As for Galen, he had no hesitation in recommending preparations made from the most expensive makeup and perfumes to treat, for example, headaches:

Εἰ δὲ καὶ σφοδροτέρας δεήσοι θερμασίας, ἐπεμβάλλειν εὐφόρβιον τῷ ἐλαίῳ καὶ ὅσα διὰ πεπέρεως σκευάζεται. ἀλείφειν δὲ μύροις τοῖσδε χρή τὸ μέτωπον καὶ ῥινῶν τοὺς πόρους, μάλιστα μὲν ἱρίνῳ καὶ ἀμαρακίνῳ καὶ ναρδίνῳ. καὶ κομμωτικὰ δὲ τῶν θερμαινόντων ἐστὶ καὶ ταῦτα δὴ τὰ πολυτελεῆ τῶν πλουσίων γυναικῶν ἀλείμματα. καλοῦσι δὲ αὐτὰ κατὰ τὴν τῶν Ῥωμαίων φωνὴν φουλιάτα τε καὶ σπικάτα (Gal. *De comp. med. sec. loc.* 2.1 [12.511–512 K.]).

For more vigorous heating agents, add euphorbia to oil and all pepper-based preparations. Anoint the forehead and nostrils with perfumes, particularly iris, marjoram and spikenard oils. Cosmetic products are heating agents, especially those exorbitant perfumes that rich women use, known in Latin as *foliata* and *spicata*.

Even if Galen appeared less lenient in other situations when it came to makeup and dyes, which bring forth an artificial, rather than natural, beauty,³² the distinction that he tries to establish in his pharmacological writings is between “cosmetics” (deemed by Galen as a part of medicine) and “commotics” (the simple art of adornment). This distinction, however, is not always as clear as he would like:

Τῷ μὲν κομμωτικῷ σκοπὸς ἐστὶ κάλλος ἐπίκτητον ἐργάσασθαι, τῷ δὲ τῆς ἱατρικῆς μέρει τῷ κοσμητικῷ τὸ κατὰ φύσιν ἅπαν ἐν τῷ σώματι φυλάττειν, ᾧ καὶ τὸ κατὰ φύσιν ἔπεται κάλλος. ἀπρεπὴς γὰρ ὀφθῆναι κεφαλὴ πάθος ἀλωπεκίας ἔχουσα, καθάπερ γε καὶ ἐκ τῶν ὀφθαλμῶν αἱ βλεφαρίδες ἐκπέσωσι

32 Ps.-Gal. *Def. med.* 129 (19.382.13 K.): “The use of beauty here is not to be confused with the ‘beauty’ attained from the use of commotics (κομμωτικῆς): the application of makeup on the face, the dying of one’s hair, or other comparable treatments.”

καὶ τῶν ὀφρύων αἱ τρίχες. οὐ μόνον δ' εἰς κάλλος, ἀλλὰ καὶ πολὺ πρότερον εἰς αὐτὴν τὴν ὑγείαν τῶν μορίων αἱ τρίχες αὐταὶ συντελοῦσιν, ὥς ἐν τοῖς περὶ χρεῖας μορίων ἐδείχθη. τί δεῖ λέγειν περὶ λειχήνων ἢ ψώρας ἢ λέπρας ὥς παρὰ φύσιν ταῦτα; τὸ μέντοι λευκότερον τὸ χρῶμα τοῦ προσώπου ποιεῖν ἐκ φαρμάκων ἢ ἐρυθρότερον ἢ τὰς τρίχας τῆς κεφαλῆς οὐλας ἢ πυρρὰς ἢ μελαίνας ἢ καθάπερ αἱ γυναῖκες ἐπὶ μήκιστον αὐξανομένας, ταῦτα καὶ τὰ τοιαῦτα τῆς κομμωτικῆς κακίας ἐστίν, οὐ τῆς ἰατρικῆς τέχνης ἔργα. διὰ δὲ τὴν κοινωνίαν τούτων ἐνίοτε καὶ βασιλικαὶ γυναῖκες ἢ οἱ βασιλεῖς αὐτοὶ προστάττουσιν ἡμῖν καὶ τὰ τῆς κομμωτικῆς, οἷς οὐκ ἔνεστιν ἀρνεῖσθαι διδάσκοντας διαφέρειν τὴν κομμωτικὴν τοῦ κοσμητικοῦ μέρους τῆς ἰατρικῆς (Gal. *De comp. med. sec. loc.* 1.2 [12.434.4–435.1 K.]).

The purpose of commotics is to produce an acquired allure; the purpose of the field of medicine known as cosmetics is to conserve everything that is natural in the body. It is unseemly, for instance, to see the head of a man who is suffering from alopecia, or even the eyes of a patient who has lost his eyelashes or eyebrows, because this type of hair not only contributes to one's attractiveness, but, more importantly, they help to keep these parts of the body in good health, as illustrated in my book *On the Utility of the Parts of the Body*. And where to begin when it comes to abnormal diseases like scabs, scabies or 'lepra'? That being said, the use of drugs to render one's face whiter or redder, to make one's hair frizzier, or a different colour, like red or black, or to increase the length of one's hair like women do, and other similar practices, are the evil workings of commotics and not the art of medicine. Because we are frequently in the company of noblewomen and even the emperors themselves, they often ask us to perform commotic treatments, from which it is virtually impossible to shy away; however, we do educate them about the difference between commotics and medical cosmetics.

Thus, subsequent to his attempt to justify himself, Galen includes a plethora of formulas in ensuing sections of his treatise. These formulas are, for the most part, attributable to Crito, Trajan's physician, and were used to both maintain and increase hair volume or prevent hair loss, but also as a hair dye (black or red), or even to fight over-developed pilosity, deemed highly unattractive.³³

33 Gal. *De comp. med. sec. loc.* 1.2 (12.435.8–439.3 K.); 1.3 (12.439.4–443.5 K.); 1.3 (12.443.6–450.5 K.); 1.4 (12.450.6–456.6 K.); 1.5 (12.456.7–459.5 K.). Regarding Crito, see Kind (1922); Buckler (1937), and Scarborough (1985).

Conclusion

In at least two passages, Galen confidently defends the legitimacy of treating patients differently, based on whether they are tough-skinned peasants or members of Rome's high society. Today, this type of stance would be inconceivable in principle, but at the heart of our contemporary societies, it is not *impossible* to see this type of attitude on rare occasions. Similarly, we cannot begrudge Galen for having failed to prescribe to a peasantry that was deprived of expensive treatments, baths, and all sorts of different forms of care, to which, in any event, they could not possibly have had access in light of their social and sanitary circumstances. Nor could Galen have been held legitimately responsible for their predicament. Viewed from this standpoint, we would actually have to commend Galen for his clairvoyance and practical intelligence, which led him to adapt his medical practice with such expertise, moving from often rustic elements to aspects that satisfy the demands of a highly refined Roman society. He did this, of course, without completely abandoning his initial rustic techniques, which were practical for emergencies while on the road and far from regular medical supplies. Galen thus offers us the portrait of a full-fledged physician whose medical practice faithfully reflected the complexity of the society of his era and is a valuable testament of the diversity of his patients, who essentially came from a variety of geographical and social backgrounds.

Bibliography

- Boudon-Millot, V. (2005), "Un médecin grec dans la société romaine de son temps: Galien de Pergame (II^e siècle de notre ère)," in: Flambard-Héricher/Marec (eds.), 11–29.
- (2007), *Galien, I. Introduction générale, Sur l'ordre de ses propres livres, Sur ses propres livres et Que l'excellent médecin est aussi philosophe*, Paris.
- (2008), "Galien de Pergame témoin de son temps. L'acculturation de la médecine grecque à la société romaine du II^e s. de n. è.," *Semitica & Classica* 1, 71–80.
- Buckler, W.H. (1937), "T. Statilius Crito, Traiani Aug. medicus," *Jahreshefte d. österr. arch. Inst. Wien* 30, Beiblatt 5–8.
- Cilliers, L. (ed.) (2008), *Asklepios. Studies on Ancient Medicine*, Bloemfontein.
- Daremberg, Ch. (1856), *Œuvres anatomiques, physiologiques et médicales de Galien*, 2, Paris.
- Eadie, J.W./Ober, J. (eds.) (1985), *The Craft of the Ancient Historian* (Essays in Honor of Ch.G. Starr, Lanham MA).

- Flambard-Héricher, A.-M./Marec, Y. (eds.) (2005), *Médecine et société de l'Antiquité à nos jours* (Actes de la journée d'études du 31 mars 2004), Mont-Saint-Aignan.
- Gourevitch, D. (2001), *I giovani pazienti di Galeno. Per una patocenosi dell'impero romano*, Rome/Bari.
- Guardasole, A. (1997), *Eraclide di Taranto. Frammenti*, testo critico, introduzione, traduzione e commentario, Naples.
- Iskandar, A.Z. (1988), *On Examinations by Which the Best Physicians Are Recognized*, Berlin.
- Jacques, J.-M. (1996), "La conservation du vin à Pergame au II^e siècle apr. J.-C.," *Revue des études anciennes* 98, 173–185.
- Kind, F.E. (1922), "Kriton," n° 7, *Paulys Real-Encyclopädie der classischen Altertumswissenschaft* 11, 1935–1938.
- Mattern, S.P. (2008a), *Galen and the Rhetoric of Healing*, Baltimore.
- (2008b), "Galen's Ideal Patient," in: Cilliers (ed.), 116–130.
- Morau, P. (1985), *Galien de Pergame. Souvenirs d'un médecin*, Paris.
- Nijhuis, K. (1995), "Greek Doctors and Roman Patients: A Medical Anthropological Approach," in: van der Eijk/Horstmanshoff/Schrijvers (eds.) (1995–1996), vol. 1, 49–67.
- Scarborough, J. (1985), "Criton, Physician to Trajan: Historian and Pharmacist," in: Eadie/Ober (eds.), 387–405.
- Staden, H. von (1992), "Women and Dirt," *Helios* 19, 7–30.
- van der Eijk, Ph.J./Horstmanshoff, H.F.J./Schrijvers, P.H. (eds.) (1995–1996), *Ancient Medicine in Its Socio-Cultural Context* (Papers read at the congress held at Leiden University, 13–15 April 1992), 2 vol., Amsterdam/Atlanta.

“Memorial” Strategies of Court Physicians in the Imperial Period

Sébastien Barbara

Abstract

Court physicians enjoyed an outstanding prominence. They were able to perpetuate their memory with ease, an aim of the greatest importance to individuals in antiquity. This paper, using historical, literary, anthropological, and iconographic approaches, investigates the strategies used by those privileged physicians to perpetuate their memory. After focussing on key figures like Antonius Musa, Stertinius Xenophon, and the *Statilii* and on lesser known personalities like Philotas of Amphissa, Euphorbos, and Andromachus the Elder, it appears that those physicians felt they had to rely mainly on literary works to achieve this end, although uncertain transmission often rendered it inadequate for the purpose. Benefactory practices were of greater weight because their memory was more efficiently perpetuated by members of their family and their native cities as demonstrated by epigraphy and numismatics.

This study takes as its starting point an anthropological commonplace in a prosopographic context: the preservation of memory and the celebration of individuals represented a major enterprise in antiquity, and particularly in the Roman world,¹ both for the “ordinary” individual and for the powerful. By considering this commonplace from a sociological point of view, the aim of this study is to find a way of exploring what was specific about the “visibility” of court physicians² and the key characteristics of this visibility in the late Roman Republic and Empire. This period represented a turning point in the history of the Mediterranean world; it was a period in which the power of Rome was expanding, giving a political and social coherence to the Mediterranean region and creating a strong pull in the direction of the *Vrbs* and the Roman élite. The

※ Translated by James Cross, subsequently revised by Jon Wilcox.

1 See, most recently, Corbier (2006).

2 For an overview of court physicians in the imperial period, see André (1987: 106); for a more detailed account, see, most importantly, Marasco (1998b; 1998c), Nutton (1977; 1993).

context of this study is the integration of Greek physicians³ into the upper tiers of the Roman power structure—that is, the assimilation of Greek medicine into the Roman socio-professional sphere. The focus is on the processes by which the memory of individual physicians was preserved⁴ and on whether strategies were established for the achievement of this end in this professional context.

Before venturing any further, two issues need to be addressed. Physicians generally enjoyed a high level of visibility even when they did not work in the entourage of a ruler because their patients and their hometowns were eager to thank them and to celebrate them. In the abundance of eulogies and decrees of honour, how can we explore the visibility of physicians at court, the privileged among the privileged? It is often difficult to discern the strategies which permitted these court physicians to distinguish themselves from others and to become even more well-known. Furthermore, upon closer examination it is also clear that there is a difference between studying channels for the preservation of memories about individual physicians and identifying the means which physicians themselves were able to employ for achieving fame in posterity. The aim, then, is to observe how memories about individual physicians were transmitted in the hope that this may subsequently reveal the intentions of the physicians themselves. In this way it may be possible to distinguish those strategies which were favoured by physicians for ensuring the posterity of their names from the range of commemorative strategies available. A number of examples of court physicians will be considered here, including lesser known individuals⁵ and physicians active in outlying kingdoms—in Egypt and in Mauretania—whose court environments bear close similarity to the imperial palace. This study first summarises what posterity remembers of these physicians in chronological order from the civil wars to Trajan, and then goes on to attempt a critical analysis of the evidence.

Physicians at the Court of Alexandria

In Alexandria under the last of the Ptolemies, the unusual record of Philotas of Amphissa,⁶ who was a physician of Antyllus the son of Antony and

3 See Cristofori (2006).

4 Imperial physicians are largely the heirs of royal physicians of the Hellenistic era; on these see Marasco (1996).

5 In general, Galen is not dealt with here (see n° 24 Marasco); his case would require a separate treatment given the extent of available evidence.

6 He does not appear in Marasco (1998c). All references to the prosopographic evidence in this article will follow Marasco (1998c) and Appendix 3 in Nutton (1977).

Fulvia,⁷ is quick to catch one’s attention. Philotas is not known except for a colourful passage in Plutarch⁸ and from an inscription at Delphi.⁹ The inscription proves that he was not executed on account of his association with Antyllus¹⁰ in 30 B.C. and that he returned to his native Phocis after this date.

The anecdote in Plutarch is very reliable since it consists of a personal memory transmitted orally to Lamprias, Plutarch’s grandfather, by Philotas¹¹ himself. Philotas, who was in Alexandria to study medicine,¹² had succeeded in entering into Antyllus’ service and dined occasionally with him and his friends.¹³ Once, when a boastful doctor was irritating the rest of the guests,¹⁴ Philotas shut him up by reciting the following false syllogism:

Τῷ πως πυρέττοντι δοτέον ψυχρόν· πᾶς δ’ ὁ πυρέττων πως πυρέττει· παντὶ ἄρα πυρέττοντι δοτέον ψυχρόν (Plu. *Ant.* 28.3 [927f–928e]).

To the patient who is somewhat feverish cold water must be given; therefore to everyone who has a fever cold water should be given (trans. Perrin [1988: 199]).

He was consequently magnificently rewarded by Antyllus. A physician could distinguish himself and ensure the preservation of his memory in posterity with skills quite different from those in which he was professionally trained. In the end, Philotas was not remembered for a cure, but for a witty repartee. His role in this anecdote hardly differs from that of a jester appreciated for his deft performance and rewarded for having made the ruler laugh.

7 Marasco (1996: 454–455); Pelling (1993: 195–196); Massar (2005: 118; 146); Ferriès (2007: 330).

8 Plu. *Ant.* 28.7–8 (928c).

9 Massar (2005: 146); Samama (2003: 165 = n° 062).

10 Moreover, it is perhaps thanks to him that Plutarch (*Ant.* 81.1–2 [953b]) knows that Antyllus would have been handed over by his tutor Theodorus; see Ferriès (2007: 330–331).

11 The detailed chronology provided by Plu. *Ant.* 28.12 (928e), ἐκάστοτε, makes it seem likely that these recurring stories are set in central Greece, long after the *bellum Alexandrinum*.

12 Plu. *Ant.* 28.3 (928a).

13 Plu. *Ant.* 28.7 (928b).

14 If the false syllogism of Philotas has a medical resonance, this is probably because the subject of the conversation was medical: rulers showed a certain intellectual curiosity that naturally favored the inclusion of physicians at the heart of groups of “friends” (φίλοι); cf. the banquet of Cleopatra in Ael. *NA* 9.11 and the possible presence of Sostratus (see Marasco [1998a: 49]).

This account could have appeared in “autobiographical reports” (ὕπομνήματα), for the physician enjoyed a special status that afforded him the role of privileged witness to great events in history. Just like secretaries or chamberlains, court physicians found themselves in the confidence of the ruler, able to divulge secrets and revelations and to adopt a position in debates about the merits of powerful people and events in which they had indirectly participated. So, a physician could sometimes become a biographer or a historiographer and have access to a level of fame that he might not otherwise have achieved had history not afforded him a key role alongside a ruler. Within the same social milieu and historical context, another physician notable for his record in posterity is Olympus, Cleopatra’s physician, who wrote a minor work on the death of the queen resembling something between an “autobiographical report,” a polemic, and a medical treatise. Plutarch must have used this as a source for important details about the death of the queen.¹⁵

Ἦν δ' ἰατρὸς αὐτῇ συνήθης Ὀλυμπος, ᾧ φράσασα τάλληθ' ἐχρήτο συμβούλῳ καὶ συνεργῶ τῆς καθαιρέσεως, ὡς αὐτὸς ὁ Ὀλυμπος εἴρηκεν ἱστορίαν τινὰ τῶν πραγμάτων τούτων ἐκδεδωκώς (Plu. *Ant.* 82.3–4 [953b–d]).

Moreover, there was a physician in her company of intimates, Olympus, to whom she told the truth, and she had his counsel and assistance in compassing her death, as Olympus himself testifies in a history of these events which he published (trans. Perrin [1988: 321]).

Here is the case, then, of an individual who gained notoriety without abandoning the general frame of medicine by exploiting his position as a direct witness to a famous scene.

Philotas, however, transmitted his ideas orally and does not seem to have left a written work. Indeed, there is no mention of his career in the decree of Delphi and no extant record of his experiences in Alexandria. He easily could have profited from his stay in the capital city of ancient medicine and from his role supporting a well-known ruler. There could be ideological reasons for this silence—following Octavian’s victory, it may have been best not to mention his period of service in Alexandria—but the example of Olympus shows that this was not a serious problem. The absence of a written work may, in the end, have more to do with Philotas’ age during this period—he was a young physician, still in training—and with his character. Plutarch’s anecdote shows Philotas snubbing a presumptuous physician. It is perhaps not so

15 See Massar (2005: 62; 245).

surprising to find that he withdraws modestly after this. Knowing that many physicians considered themselves philosophers as well, it is likely that they did not all succumb to millions of sesterces and the vanity of glory.

We also know about the case of Dioscurides Phakas at the court of Cleopatra.¹⁶ His competence as a physician and his medical writings are mentioned in the biographical tradition, and he also entered the history books by playing a minor role in the *bellum Alexandrinum*. We know that he was a member of the entourage of Ptolemy XII¹⁷ and that he assumed the role of ambassador to Rome for Ptolemy,¹⁸ a role which was often entrusted to a physician.¹⁹ We also know that he came close to death during a reconciliatory mission²⁰ on which Ptolemy XIII had sent him with Achilles in 48 B.C. Dioscurides Phakas, a trustworthy individual, was highly successful²¹ from a medical point of view if we are to believe what the *Suda* has to say on the subject.²² He also seems to be a good illustration of the phenomenon that N. Massar describes: doctors who gravitated towards the entourage of a monarch appear in biographical lexica but left few traces of their medical work, strictly defined, as if they gained prestige apart from their profession as doctors.²³ We should not conclude from this, however, that sovereigns recruited unknown individuals. Aside from exceptional cases in which faithfulness seems to be valued more highly than medical competence, the main desire was for experts²⁴ and so for those doctors who had already distinguished themselves through their medical knowledge and writing.

16 Massar (2005: 58; 152).

17 Caes. *Ciu.* 3.109.4–5; Schol. Lucan. 10.471 (p. 411 Endt).

18 Fraser (1972: 1, 372); Marasco (1996: 453–454); Massar (2005: 60–61).

19 Cf. Samama (2003: 120). Once their fidelity had been proven through their work as physicians, some individuals adopted other prestigious roles such as diplomatic missions: see the example of Oribasius' mission to Delphi noted by Marasco (1998b: 275). Others took on roles at the heart of the palace, such as Tiberius' physician Charicles (Suet. *Tib.* 72.6). Kaplan (1990: 72) thinks that he was among the *conuictores* ("table companions") of the ruler and was also his secretary. Similarly, Oribasius was librarian of the emperor Julian: see Marasco (1998b: 274).

20 Caes. *Ciu.* 3.109.5. Cf. Lucan. 10.468.

21 Caes. *Ciu.* 3.109.3.

22 *Suda* s.u. Διοσκούριδης (p. 113 Adler). He wrote a seven-book Hippocratic glossary in which he argued against his predecessors: see Fraser (1972: 1, 367).

23 Massar (2005: 178–179).

24 Marasco (1998b: 269).

Two Doctors of the Augustan Period: Musa and Euphorbos

Antonius Musa²⁵ (n° 4 Marasco), a renowned physician of Augustus, is an excellent example of the use of “memorial” strategies. Musa was a significant personality: his aura and authority was so remarked upon by the Romans that forgers subsequently used his name (as others were to do with Galen’s name later on) to try to deceive readers. The memory of Musa was associated with the recovery of Augustus in 23 B.C., the honours that he obtained at Rome, and his use of original methods of treatment and his famous remedies. Galen recommended the recipes in his work,²⁶ and his name reappeared in Pliny in connection with the use of lettuce and adder’s flesh.²⁷ From every angle, it is his success²⁸ that explains the preservation of his memory. Furthermore, we can infer from a passage in Pliny that the glory of Musa was inversely proportional to the failure of the physician C. Aemilius (n° 1 Marasco),²⁹ a detail that underlines the significance of rivalry between doctors and between medical schools.³⁰ Suetonius notes, moreover, that Musa’s success was also proportional to the risks run by Augustus on this occasion. He was honoured by the people, and Suetonius writes that:

Medico Antonio Musae, cuius opera ex ancipiti morbo conualuerat, statuam aere conlato iuxta signum Aesculapii statuerunt (Suet. *Aug.* 59.1).

A sum of money was raised and Musa’s statue set up beside that of Aesculapius (Trans. Rolfe [1989: 215]).

In a period in which one’s statue could not be erected without the permission of the emperor, this honor was exceptional. In some sense the physician joined the family of Asclepius and was then thought worthy of appearing next to the god just like Hygieia or Telesphorus.

25 Michler (1993).

26 Gal. *De comp. med. per gen.* 2.1 (13.463 K.).

27 Plin. *Nat.* 19.128; Plin. *Nat.* 30.117; cf. Gal. *De temper.* 3.4 (1.681 K.).

28 Only D.C. 53.30.3–4, while also recounting the honour that Musa received on this occasion, tempers his account by noting Musa’s failure when treating Marcellus.

29 Plin. *Nat.* 29.128; Plin. *Nat.* 29.6. See also Kaplan (1990: 69).

30 As witnessed, for example, in situations described by Galen in the entourage of Marcus Aurelius, most notably concerning the emperor’s diarrhoea, Gal. *De praenotione ad Posthumum* 11 (14.657–660 K.), and in the jealousies inspired by Galen’s first trip to Rome as noted by Moraux (1985: 21–22).

The record we have of his brother³¹ is very different. Indeed, our knowledge of Euphorbos (not included in Marasco),³² who was a physician at the court of King Juba II (25 B.C.–A.D. 24) in the kingdom of Mauretania, depends on a single piece of evidence³³ concerning the plant *euphorbion* (the plant of Euphorbos, "spurge").³⁴ If we can believe Galen,³⁵ Juba³⁶ is said to have written a short work concerning this plant. Pliny gives some details about its discovery in two separate passages, but the details are confusing: he says in book 25 (77–78) that Juba discovered and named the plant³⁷ but in book 5 (16) that Euphorbos discovered it.³⁸ The second passage seems to conform to the rule that plants should be named after whoever discovers them. Strangely, the first, more elaborate passage from Pliny describes how Juba discovered the plant, wrote a treatise about it, but then named the plant after his physician. Euphorbos was just as capable of writing a treatise about this plant. Considering all this, it seems unlikely that Juba discovered the plant himself. However, he could have been the author of the treatise about the plant as this would fit with his renowned "encyclopaedic knowledge" (πολυμάθεια). All the evidence we have about the discovery of *euphorbion* and the publication of the details of its

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- 31 Euphorbos was the brother of Antonius Musa (Plin. *Nat.* 25.77); he was also an emancipated slave of Marcus Antonius; Kaplan (1990: 69); Ferriès (2007: 15–16). Since Juba was married to Cleopatra Selene, the daughter of Marcus Antonius and Cleopatra, Cleopatra Selene may have been able to bring individuals passing through Alexandria to the court of Juba; cf. Marasco (1998b: 279). This is also implied in Ferriès (2007:16).
- 32 See Michler (1993: 760–764).
- 33 Roller (2003: 179).
- 34 Hünemörder (2004).
- 35 Roller (2003: 178). See the article by Antoine Pietrobelli in this volume.
- 36 Gal. *De comp. med. sec. loc.* 9.4 (13.271 K.); this remark suggests a work that strongly resembles the ancient equivalent of a scientific publication. Cf. Dsc. 3.82.2 (p. 98 Wellmann); Wellmann (1889: 535–536).
- 37 "In the age too of our fathers King Juba discovered a plant to which he gave the name euphorbea, calling it after his own physician Euphorbos. . . . But the treatise also of Juba on this plant is still extant, and it makes a splendid testimonial. He discovered it on Mount Atlas; it has the appearance of a thyrsus and the leaves of the acanthus" (trans. Jones [1966: 193]).
- 38 "Juba, the father of Ptolemy, who was the first ruler to hold sway over both Mauretania, and who is even more distinguished for his renown as a student than for his royal sovereignty, has published similar facts about Mount Atlas, and he stated in addition that a plant grows there called the euphorbia, named after his doctor who discovered it; in a volume devoted solely to the subject of this plant he sings the praises of its milky juice in very remarkable terms, stating it to be an aid to clear sight and an antidote against snake-bite and poison of all kinds" (trans. Rackham [1989: 231]).

properties could be explained by Juba's desire to value his physician and consciously commemorate him in posterity.

From Tiberius to Trajan (A.D. 14–117)

Between the principate of Tiberius and that of Nero (A.D. 14–68), several court physicians are known to us,³⁹ but the *Stertini*—Q. Stertinius and C. Stertinius Xenophon (n° 42 and 41 Marasco)—offer the richest evidence for the use of “memorial” strategies. The case of Xenophon is very well documented⁴⁰ on the basis of various sources which complement one another; an important epigraphic corpus recently studied by K. Buraselis⁴¹ offers substantial evidence about the administrative career of this individual and the honours he received on the island of Cos (Caria).

Q. Stertinius, physician of Caligula and Claudius, and his brother C. Stertinius Xenophon, Claudius' physician,⁴² belonged to the medical family of Asclepiads of Cos.⁴³ Pliny tells us about their astronomical fees and notes that they left a legacy of thirty million sesterces despite the fact that a large portion of their fortune had already been distributed in “euergetism” in Naples.⁴⁴ “Euergetism” would not have been considered as unique to court doctors. Even in small cities, we find physicians who are remembered by important constructions and who are honoured⁴⁵ for their “euergetism.” C. Stertinius Xenophon is also well known to us thanks to Tacitus,⁴⁶ who tells us quite clearly that the island of Cos owed the gift of immunity to Xenophon's intervention with Claudius.⁴⁷ Cos must also have benefited from the generosity of the brothers *Stertini*: inscriptions note the honours and praise they received and attest to the influence of

39 Under Tiberius, see Kaplan (1990: 71–76); under Caligula, Ti. Claudius Menecrates is known and perhaps also a physician named Halcyon, see Kaplan (1990: 76–77); Vettius Valens played a role under Claudius, see Kaplan (1990: 77–91); for Nero, see Kaplan (1990: 91–114).

40 Sherwin-White (1978: 149–152; 238–285).

41 Kaplan (1990: 348–350 = Appendix I); Buraselis (2000: 66–110); Samama (2003: n° 142–147; cf. 154).

42 Kaplan (1990: 78–88).

43 Buraselis (2000: 75).

44 Plin. *Nat.* 29.7. Another example of this is Crinias (n° 20 Marasco) who used his fortune to strengthen Marseille: see Plin. *Nat.* 29.9.

45 See Rémy/Delrieux (2007).

46 Tac. *Ann.* 12.61.2.

47 Kaplan (1990: 85).

these individuals in local life; they also show that those close to the doctors enjoyed certain advantages.⁴⁸

The case of Xenophon is somewhat unusual in that he was regarded as a veritable hero by his descendants, by his emancipated slaves on Cos, and in the wider civic context on the island.⁴⁹ Moreover—an exceptional fact—Xenophon was named, represented, and honoured on two local artefacts. One of these "pseudo-autonomous" bronze coins⁵⁰ represents Xenophon himself on the obverse⁵¹ with the legend ΞΕΝΟ-ΦΩΝ and Hygieia on the reverse; the other qualifies Xenophon as ΙΕΡΕΥΣ and shows the club of Asclepius on the reverse. Naturally, Xenophon was a priest of Asclepius⁵² and a patron of the *Asklepieion* of Cos.⁵³ Sherwin-White⁵⁴ highlights the fact that these honours and the privilege of being represented in this way are not found prior to Nicias,⁵⁵ the most influential figure in Cos in the second half of the first century B.C. In fact, on the basis of the "pseudo-autonomous" coinage, it becomes clear that Xenophon's image was composed along the same lines as that of Heracles, Asclepius, and Hippocrates.⁵⁶ The "memory of Xenophon" was therefore reactivated through the self-promotion of the island of Cos, which is based on the production of coins. It is crucial to remember that these coins with the effigy of Xenophon were not issued until a long time after his death. B.V. Head dates them to the imperial period,⁵⁷ and we might be tempted to think that they are contemporary with the physician; in fact they date from the second, if not the third, century⁵⁸ and therefore reveal a different commemorative process: they form part of the posthumous hero cult of the physician in the civic sphere.

A few years later, under Nero, alongside Thessalus (n° 44 Marasco),⁵⁹ whose reputation and finances must have been used to create a school and support

48 Buraselis (2000: 74–75, 77).

49 Buraselis (2000: 78–79, 95).

50 Head (1897: 215, n° 212–214 and n° 215; pl. 33. 6). See Head (1887: 634); Hart (1966: 83).

51 Sherwin-White (1978: 151).

52 Sherwin-White (1978: 284). Cf. Christol/Drew-Bear (2004: 103–108) on the priesthood of L. Gellius Maximus at Antioch.

53 Sherwin-White (1978: 352).

54 Sherwin-White (1978: 151).

55 On Nicias, see Buraselis (2000: 25–65).

56 Head (1897: 216, n° 216; pl. 33. 7).

57 Head (1897: 213).

58 Burnett/Amandry/Ripollès (1992: 452).

59 Marasco (1998c: 258–259). His status as imperial physician is not accepted, however. See also López Férez (1991: 193–199) on this individual.

influential research, we also know of the existence of a “court physician” (ἀρχίατρος) in Rome called Andromachus (n° 2 Marasco).⁶⁰ This individual known only indirectly through cures described by Galen⁶¹ is never mentioned by the historians or by any other source even though he held a very distinguished role.⁶² We know, however, thanks to Galen, that he composed theriacs in elegiac distichs.⁶³ These compositions are remarkable since this type of poem, which is part of the didactic tradition, was generally written in hexameters. Andromachus also discovered a kind of galena.⁶⁴ These activities suggest a court physician very close in kind to the royal physicians of the Hellenistic epoch. His brief poem, dedicated to Nero and preserved because Galen liked it, is an interesting source for considering Andromachus further.⁶⁵ The “hologrammatic” system was eagerly recommended by Galen because it permitted a better transmission of numbers,⁶⁶ but this is only one kind of preservation enabled by the poetic form. Andromachus’ use of this system shows that he was fully conscious of the wider application of this poetic form as a “memorial” strategy.⁶⁷

Andromachus would hardly have left a trace in history without the record of this court poem in the tradition of Nicander. This example of commemoration attests to the taste for science and poetry in the court of Nero. The silence of other sources about Andromachus could give rise to a suspicion: would the memory of this physician have been consciously suppressed because of the circulation of stories about Nero’s poisonings (following the deaths of Claudius, Britannicus, and Agrippina)? G. Marasco has shown clearly how the specialisation of some Greek doctors in pharmacology could have harmed them⁶⁸ in the Roman world: after the *Twelve Tables*, people were afraid of being poisoned.⁶⁹

60 André (1987: 52); Kaplan (1990: 91–92). On Andromachus the Younger (n° 3 Marasco), see Gal. *De comp. med. sec. loc.* 6.6 (12.929–933 K.); Gal. *Antid.* 1.6–7 (14.32–44 K.).

61 Gal. *De comp. med. sec. loc.* 7.2 (13.14 K.); Gal. *Antid.* 1.1 (14.2–3 K.); Gal. *De ther. ad Pis.* 1 (14.211 K.); Gal. *De ther. ad Pis.* 5–8 (14.232–237 K.).

62 Houston (1992: 355).

63 See the incomplete edition of Salemmme (1972: 333–334).

64 Salemmme (1972: 332).

65 Houston (1992: 355–356).

66 Luccioni (2003: 59–62).

67 I thank Anne Gangloff, who brought the interesting case of Marcellus of Side to my attention. Marcellus was active at Rome under Hadrian and Antoninus Pius. The status of this poet-physician has never been properly researched: see Gangloff (2007: 351).

68 Marasco (1995: 41–42); Kaplan (1990: 122–126).

69 Table 8.25 referred to by Harmand (1976¹: 181). See also the famous affair of the women poisoners in 331 B.C. (Liu. 8.18) and the attacks on Cato of Utica, who was accused of having sold cantharides (Plin. *Nat.* 29.96).

Under the Empire, accusations of poisoning, well-founded or not, were made regularly.⁷⁰

Under the principate of Trajan (A.D. 98–117), we find the influential *Statilii*⁷¹ family, which was in some ways similar to the *Stertini* above. T. Statilius Crito appears to have been the most prominent member of this family. He was a physician of Trajan (n° 39 Marasco; 40 Nutton; 200 Nissen), who had also published medical treatises that were praised by Galen.

The inscriptions of Heraclea Salbace (Caria)⁷² allow us access to a rich ensemble of coherent evidence concerning this family of "court physicians" (ἀρχιάτροι). Several inscriptions mention T. Statilius Crito. The first of these is the posthumous dedication by Crito of a statue of Trajan, which presents him as "court physician, [procurator] and friend of the emperor."⁷³ Another is a statue of Crito dedicated by his son Statilius Marcianus.⁷⁴ At Ephesus, an honorific inscription for Crito was found:⁷⁵ between A.D. 103 and 115 the college of physicians honoured him⁷⁶ and, evidently, details about his career circulated with this type of support.⁷⁷ He was first qualified as "court physician," then as procurator of Trajan, and finally he obtained priesthoods:

Priest of the *Anactores*, of King Alexander as well as of Gaius and Lucius, grandsons of Augustus.⁷⁸

Crito was without doubt considered a "founder" (κτίστης) at Heraclea.⁷⁹ J. and L. Robert have also shown that he used his influence over Trajan to gain favour for his birthplace⁸⁰ just as Stertinius's recommendation allowed Cos to obtain

70 Against Eudemus, concerning the murder of Drusus: Marasco (1998c: n° 22); Kaplan (1990: 76). Against Stertinius, concerning the murder of Claudius: Tac. *Ann.* 12.67.2; Marasco (1998c: n° 41). Against Posidippus concerning the murder of Lucius Verus: Marasco (1998c: n° 34).

71 Nissen (2006: 320–325).

72 Samama (2003: n° 246–248).

73 Robert/Robert (1954: n° 49) = Samama (2003: n° 246).

74 Robert/Robert (1954: 75); cf. Samama (2003: 365, n. 6).

75 Samama (2003: n° 205).

76 Samama (2003: 328, n. 52).

77 Samama (2003: 365, n. 5).

78 Samama (2003: 328).

79 See note 92.

80 Robert/Robert (1954: 223–224).

immunity,⁸¹ and just as L. Gellius Maximus' (n° 26 Marasco; 27 Nutton)⁸² recommendation to Caracalla gained favour for Antioch in Pisidia in turn.⁸³

Two inscriptions were erected in Heraclea by another member of this family, Statilius Attalus (n° 38 Marasco; 38 Nutton; 203 Nissen), who presents himself as "court physician of the emperors"⁸⁴—Antoninus and Marcus Aurelius—and who honoured both his mother⁸⁵ and his great uncle as "court physicians." The name Attalus, a "court physician,"⁸⁶ also appears on the coinage of Heraclea, whose chronology is not established.⁸⁷ But three issues which are dedicated to νέοι ("the young men") of Heraclea do not represent Statilius, but rather some divinities honoured there:⁸⁸ one shows Heracles,⁸⁹ the second shows Asclepius,⁹⁰ the third, which is a pseudo-autonomous, shows Heracles on the obverse and Artemis of Ephesus on the reverse.⁹¹

In the families of "court physicians," the memory of ancestors was promoted. Ancestors shared the benefit of their privileges with members of their family, and their descendants were eager to honour them in return. Thus, in an honorific decree⁹² for T. Statilius Apollinarius, dated A.D. 170, the ancestors of the individual (i.e. Crito) were thanked because they had allowed the development of the city on account of "favours obtained from the emperor Trajan."

Conclusion

Some physicians, then, gained great advantages from their proximity to the powerful; advantages like money,⁹³ leisure, opportunities, and networks. These

81 Kaplan (1990: 85–86).

82 Samama (2003: n° 331–332, 337–337bis).

83 Christol/Drew-Bear (2004: 91–92). Similarly Ti. Claudius Menecrates (n° 19 Marasco) probably promoted his birthplace (?), the city of Sosandra in Lydia: Kaplan (1990: 88–89).

84 Robert/Robert (1954: n° 76–77) = Samama (2003: n° 247–248).

85 Robert/Robert (1954: n° 76) = Samama (2003: n° 248).

86 Robert/Robert (1954: 220).

87 Nissen (2006: 325).

88 Robert/Robert (1954: 220).

89 Head (1897: n° 25): representing Antoninus Pius.

90 Head (1897: n° 26–27): representing Marcus Aurelius. On the importance of Asclepius at Heraclea, see Robert/Robert (1954: 227–228).

91 Babelon (1898: 130) = Coll. Waddington, 2406.

92 Robert/Robert (1954: 163–164, n° 40); Samama (2003: 365, n. 5).

93 The medical ethic that appears in some inscriptions presents physicians as just as willing to treat slaves as kings and as disdainful of personal profits: see Samama (2003: n° 022; n° 137). Cf. Samama (2003: 203, 471).

advantages could help to ensure the longevity of their name by permitting the production and dissemination of a written work. It is not surprising to find physicians such as Oribasius composing written collections⁹⁴ and producing *epitomae*.⁹⁵ Sometimes physicians even wrote works which had no apparent link with medicine, profiting from their position as privileged witnesses,⁹⁶ as did Crito with the *Getic History* (Γετικά).⁹⁷ This text is historical and, although Crito's medical training permitted him to add certain details, the main aim was to recount the history of the war against the Getae. Oribasius (n° 31 Marasco) wrote about the Persian war of A.D. 363, which cost the emperor Julian his life. This work constituted an eyewitness account and was used immediately afterwards by Eunapius of Sardes.⁹⁸ There was a high level of culture in this socio-professional sphere that afforded physicians renown in other domains as they found alternative ways of promoting themselves.

It is important not to make any hasty generalisations when analyzing channels for the diffusion of memory and the motives behind the self-promotion of these physicians. A caricatured view of these physicians' search for renown must be avoided. It is nevertheless worth stating that their memory is generally well-preserved while most of their scientific works have not survived. We should not draw any conclusion from this since it only indicates that literature, which plays an important role in the perpetuation of memories, has not entirely achieved its end and that there are more diffuse and effective channels of memorialisation.

We cannot systematically connect the production of literature with the privileged situation of court physicians, even if it is tempting to think that they were occupied mostly in the production of written works. The reality may have been different: these physicians had other patients⁹⁹ and obligations; they did not live in the palace waiting for the emperor to be ill! Besides, the composition of written works is not a phenomenon limited to court physicians: we know of one Hermogenes at Smyrna¹⁰⁰ whose incredible epitaph, worthy of an entry in the *Suda*, lists a number of medical and historical works; there is also the inscription of Heraclitus of Rhodiapolis,¹⁰¹ physician, philosopher, and

94 This is certainly the case for Galen and for Ti. Claudius Menecrates (n° 19 Marasco).

95 Marasco (1998b: 269).

96 On physician-historians in the classical era and in particular on Ctesias, see Lenfant (2010).

97 Lyd. *Mag.* 2.28.

98 Eun. *Hist. fr.* 15 Blockley. See Marasco (1998c: 246, 255).

99 Cf. Musa healing Horace (*Epist.* 1.15.2–5).

100 Samama (2003: 318–320, n° 194).

101 Samama (2003: 397–399, n° 290); Rémy/Delrieux (2007: 290).

man of letters, whose accumulated honours in the Eastern Mediterranean and good deeds are worthy of a court physician.

The fundamental difference between the production of literature among court physicians and among other physicians is the preservation of the works. Galen, who had access to imperial libraries, was well-acquainted with the works of his predecessors. Works in a remote village of Asia were not as well preserved or transmitted. Physicians in a large court in the heart of a cultural capital could not only publish works more easily, but also with a greater likelihood of conservation and transmission, giving the physicians themselves more longevity and visibility.

Another dimension of memorialisation brought to light through this analysis is the family network, which is significant in most of the cases explored here. Families supported the remembering of ancestors. Few physicians actively sought to publicise their names and achievements even when did in fact happen.¹⁰² Families and cities profited from the fame of their physicians, and rulers rewarded them. There are also examples of students who honoured a respected teacher like the disciples of Ti. Claudius Menecrates (n° 19 Marasco), who had a “hero shrine” (ἥρῶν) erected in Rome to celebrate his talents.¹⁰³ The civic dimension also plays an important role. Physicians from the provinces promoted their hometowns¹⁰⁴ and were in turn promoted by them. Sometimes they used their riches to promote a city that was not their hometown. Yet, the public image of the career and skills of an individual was not always the result of his will: it was the result of familial “memorial” strategies and charitable works. Therefore, memories about individual court physicians have a resonance beyond a single individual’s interests. This is the case with Stertinius Xenophon at Cos: the coins with his effigy were not issued until after his death, and they reveal a different commemorative process, one in which the historic physician joined Hippocrates in a celebration of the ancient glories of Cos.¹⁰⁵

102 Under Nero, Thessalus (n° 44 Marasco) in his epitaph adopted the title *iatronices* (“victor amongst physicians”): Plin. *Nat.* 29.9. Cf. Gal. *De meth. med.* 1.2 (10.8 K.).

103 He was a physician of emperors and founder of a medical school which published its doctrine in 156 books: see Kaplan (1990: 88); Samama (2003: 510–511, n° 461).

104 Kaplan (1990: 126).

105 If we could prove that the bronze coin of Hippocrates is later than the coin showing Xenophon, this would indicate that it was Xenophon’s memory that began the process of the self-promotion of the island of Cos based on the production of coins through the celebration of Asclepiads.

In the post-Aristotelian biographical tradition,¹⁰⁶ works consecrated to famous physicians appear.¹⁰⁷ Even at this stage in history, they testify to the general interest in this socio-professional category. Rumours and legends circulated about the imperial physicians, and they were glorified in these books. Moreover, all those who came close to power also generated interest and rumour, which inevitably distorted the memory of these individuals. Proximity to a ruler was a two-edged sword: physicians in this situation benefited from an increased visibility, but this was in proportion to the risks involved in adopting such a responsibility and to the real dangers of the court. This danger is shown by the example of Vettius Valens (n° 45 Marasco), who was "renowned for his adultery with Messalina" and was executed by Claudius in 48,¹⁰⁸ as Pliny noted,¹⁰⁹ or by the case of Eudemus (n° 22 Marasco), who was accused of adultery¹¹⁰ with Livia and executed under Tiberius.¹¹¹ In these circumstances it was not only the memory of an individual that disappeared, but also the influence of a school. The doctor's promoted students also saw the doors of the palace close before them.¹¹²

This analysis has also brought to light these physicians' specialism in pharmacy—if not in iology—and in cosmetics. In the tradition of court physicians of the Hellenistic era, the imperial physicians were also interested in unguents for the women of the imperial family,¹¹³ and they were aware of poisons and often specialised in antidotes, notably in theriac or in theriacs in the broader sense of the term (Eudemus;¹¹⁴ Demetrius [n° 21 Marasco]; Galen;¹¹⁵ Magnus [n° 29 Marasco]; Cassius [n° 12 Marasco]); Andromachus the Elder and the Younger).¹¹⁶ In this line of work the fashion was for versification. As suggested by the prestigious model of Nicander of Colophon,¹¹⁷ there is a link

106 Momigliano (1991: 103–122).

107 See for example those of Hermippus and Soranus cited in Philo Byblius *Historicus* fr. 19–20 Müller.

108 Tac. *Ann.* 11.35.7. See Kaplan (1990: 77–78).

109 Plin. *Nat.* 29.8.

110 On this type of recurrent accusation, see Kaplan (1990: 123–124).

111 Plin. *Nat.* 29.20; Tac. *Ann.* 4.3.5; Tac. *Ann.* 4.11.2.

112 Kaplan (1990: 78).

113 Besides the *Cosmetica* of Crito (n° 200 Nissen), see also the famous case of toothpaste developed for Messalina by Vettius Valens in Scrib. *Larg.* 60 (p. 35 Sconocchia).

114 Kaplan (1990: 75). Cf. Servilius Damocrates (n° 54 dub. Marasco); Luccioni (2003: 60–61).

115 Gal. *Antid.* 1.1 (14.1–5 K.).

116 Kaplan (1990: 96–98). Cf. Antonius Musa and adder's flesh in Plin. *Nat.* 30.117.

117 On Nicander, poetry and medicine, see Jacques (1979; 2006); Touwaide (1991).

here with the preservation of memory since it is through this privileged art that some physicians of court sought at the same time both to affirm their socio-cultural status and to attain a form of immortality.

Bibliography

- André, J. (1987), *Être médecin à Rome*, Paris.
- Argoud, G./Guillaumin, J.-Y. (eds.) (1998), *Sciences exactes et sciences appliquées à Alexandrie. 3^e siècle av. J.-C. – 1^{er} siècle apr. J.-C.* (Actes du colloque international de Saint-Étienne, 6–8 juin 1996), Saint-Étienne.
- Babelon, E. (1898), *Inventaire sommaire de la Collection Waddington acquise par l'État en 1897*, Paris.
- Brun, P. (ed.) (2007), *Scripta Anatolica* (Hommages à Pierre Debord), Bordeaux/Paris.
- Buraselis, K. (2000), *Kos between Hellenism and Rome. Studies on the Political, Institutional and Social History of Kos from ca. the Middle Second Century B.C. Until Late Antiquity*, Philadelphia.
- Burnett, A./Amandry, M./Ripollès, P.P. (1992), *Roman Provincial Coinage*, 1. *From the Death of Caesar to the Death of Vitellius (44 B.C. – A.D. 69)*, London.
- Christol, M./Drew-Bear, T. (2004), "Caracalla et son médecin L. Gellius Maximus à Antioche de Pisidie," in: Colvin (ed.), 85–118.
- Colvin, S. (ed.) (2004), *The Greco-Roman East: Politics, Culture, Society*, Cambridge/New York.
- Corbier, M. (2006), *Donner à voir, donner à lire. Mémoire et communication dans la Rome ancienne*, Paris.
- Cristofori, A. (2006), "Medici 'stranieri' e medici 'integrati' nella documentazione epigrafica del mondo romano," in: Marcone (ed.), 111–141.
- Cusset, Ch. (ed.) (2006), *Musa docta. Recherches sur la poésie scientifique dans l'Antiquité*, Saint-Étienne.
- Deroux, C. (ed.) (1992), *Studies in Latin Literature and Roman History*, 6, Bruxelles.
- Ferriès, M.-C. (2007), *Les partisans d'Antoine. Des orphelins de César aux complices de Cléopâtre*, Paris.
- Fraser, P.M. (1972), *Ptolemaic Alexandria*, 3 vol., Oxford.
- Gangloff, A. (2007), "Les poètes dans les inscriptions grecques de Rome. Esquisse d'une approche socioculturelle," *Cahiers du Centre Gustave-Glotz* 18, 349–374.
- Harmand, L. (1976¹), *Société et économie dans la République romaine*, Paris (1993²).
- Hart, G.D. (1966), "Ancient Coins and Medicine," *Canadian Medical Association Journal* 94, 77–89.

- Head, B.V. (1887), *Historia Numorum: A Manual of Greek Numismatics*, London, 1911² ([1983] reprint New York).
- (1897), *A Catalogue of the Greek Coins in the British Museum*, 18. *Catalogue of the Greek Coins of Caria, Cos, Rhodes*, London ([1982] reprint Bologna).
- Houston, G. (1992), "Two Conjectures Concerning Nero's Doctor, Andromachos the Elder," in: Deroux (ed.), 354–361.
- Hünemörder, Ch. (2004), "Euphorbion," *New Pauly*, 5, Leiden/Boston, 181.
- Jacques, J.-M. (1979), "Nicandre de Colophon poète et médecin," *Ktèma* 4, 133–149.
- (2006), "Nicandre de Colophon, poète et médecin," in: Cusset (ed.), 19–48.
- Jones, W.H.S. (1966), *Pliny. Natural History*, vol. VII, Cambridge MA/London.
- Kaplan, M. (1990), *Greeks and the Imperial Court from Tiberius to Nero*, New York.
- Lenfant, D. (2010), "Le médecin historien," in: Zecchini (ed.), 231–247.
- López Férez, J.A. (1991), "Le témoignage de Galien sur les méthodiques à Rome," in: Mudry/Pigeaud (eds.), 187–201.
- Luccioni, P. (2003), "Raisons de la prose et du mètre. Galien et la poésie didactique d'Andromachos l'Ancien," in: Palmieri (ed.), 59–75.
- Marasco, G. (1995), "L'introduction de la médecine grecque à Rome. Une dissension politique et idéologique," in: van der Eijk/Horstmanshoff/Schrijvers (eds.), 1: 35–48.
- (1996), "Les médecins de cour à l'époque hellénistique," *Revue des études grecques* 109.2, 435–466.
- (1998a), "Cléopâtre et les sciences de son temps," in: Argoud/Guillaumin (eds.), 39–53.
- (1998b), "I medici di corte nella società imperiale," *Chiron* 28, 267–285.
- (1998c), "I medici di corte nell'impero romano. Prosopografia e ruolo culturale," *Prometheus* 24.3, 243–263.
- Marcone, A. (ed.) (2006), *Medicina e società nel mondo antico* (Atti del convegno di Udine, 4–5 ottobre 2005), Florence.
- Massar, N. (2005), *Soigner et servir. Histoire sociale et culturelle de la médecine grecque à l'époque hellénistique*, Paris.
- Michler, M. (1993), "Principis medicus: Antonius Musa," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 757–785.
- Momigliano, A.D. (1991), *La naissance de la biographie en Grèce ancienne*, trans. by Oudot, E., Strasbourg (= *The Development of Greek Biography*, Cambridge MA, [1971]).
- Moraux, P. (1985), *Galien de Pergame. Souvenirs d'un médecin*, Paris.
- Mudry, Ph./Pigeaud, J. (eds.) (1991), *Les écoles médicales à Rome* (Actes du 2^e colloque international sur les textes médicaux latins antiques, Lausanne, septembre 1986), Geneva.

- Nissen, C. (2006), *Prosopographie des médecins de l'Asie Mineure pendant l'Antiquité classique*, 1. *Catalogue des médecins*, Ph.D. thesis, EPHE (4^e section), Paris.
- Nutton, V. (1977), "Archiatry and the Medical Profession in Antiquity," *Papers of the British School at Rome* 45, 191–226.
- (1993), "Roman Medicine: Tradition, Confrontation, Assimilation," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 49–78.
- Palmieri, N. (ed.) (2003), *Rationnel et irrationnel dans la médecine ancienne et médiévale. Aspects historiques, scientifiques et culturels* (Actes du colloque international sur les textes médicaux antiques et médiévaux, Saint-Étienne, 14–15 novembre 2002.), Saint-Étienne.
- Pelling, C.B.R. (1999³), *Plutarch. Life of Antony*, Cambridge (1988¹).
- Perrin, B. (1988), *Plutarch's Lives*, 9, Cambridge MA/London.
- Rackham, H. (1989), *Pliny. Natural History*, 2, Cambridge MA/London.
- Rémy, B./Delrieux, F. (2007), "Les médecins dans les inscriptions de la province romaine de Lycie-Pamphylie," in: Brun (ed.), 261–280.
- Robert, L./Robert, J. (1954), *La Carie. Histoire et géographie historique avec le recueil des inscriptions antiques*, 2. *Le plateau de Tabai et ses environs*, Paris.
- Rolfe, J.C. (1989), *Suetonius*, 1, Cambridge MA/London.
- Roller, D.W. (2003), *The World of Juba II and Kleopatra Selene: Royal Scholarship on Rome's African Frontier*, London/New York.
- Salemme, C. (1972), "Varia iologica," *Vichiana* n.s. 1, 330–343.
- Samama, É. (2003), *Les médecins dans le monde grec. Sources épigraphiques sur la naissance d'un corps médical*, Geneva.
- Sconocchia, S. (1983), *Scribonius Largus. Compositiones*, Leipzig.
- Sherwin-White, S.M. (1978), *Ancient Cos: An Historical Study from the Dorian Settlement to the Imperial Period*, Göttingen.
- Touwaide, A. (1991), "Nicandre. De la science à la poésie. Contribution à l'exégèse de la poésie médicale grecque," *Aeuum* 65, 65–101.
- van der Eijk, Ph.J./Horstmannshoff, H.F.J./Schrijvers, P.H. (eds.) (1995), *Ancient Medicine in its Socio-Cultural Context* (Papers read at the congress held at Leiden University, 13–15 April 1992), 2 vol. Amsterdam/Atlanta.
- Wellmann, M. (1889), "Sextius Niger. Eine Quellenuntersuchung zu Dioscorides," *Hermes* 24, 530–569.
- (1906), *Pedanii Dioscuridis Anazarbei de materia medica libri quinque*, 2. *Quo continentur libri III et IV*, Berlin (1958³).
- Zecchini, G. (ed.) (2010), *Lo storico antico. Mestieri e figure sociali* (Atti del convegno internazionale, Roma, 8–10 novembre 2007), Bari.

The Identity, Legal Status and Origin of the Roman Army's Medical Staff in the Imperial Age

Pascal Bader

Abstract

More than a hundred epigraphic documents on different writing materials refer to medical staff in the Roman army. This paper focuses on the identity, legal status and origin of the Roman army medical staff—a topic which until now has hardly been studied. Various titles were conferred to a large number of medical staff in every unit of the Roman army; the doctors (*medici*) were the most numerous and had different ranks and status. The onomastic study of the inscriptions reveals a large proportion of Roman citizens in the military medical service. Most of them are *ingenui* with a Latin name, but freedmen with a Greek origin are frequently attested, though less so than among civilian doctors. These results dispel some misconceptions such as the Greek origin of most military doctors, which can be explained by the legal requirements of the recruitment into the Roman army.

Now, I shall discuss a matter which must be given the utmost care: the means whereby the health of the army may be preserved.¹

The importance of medicine in the art of war is attested from very early times, but it was only in the Roman era, and specifically under the Empire, that steps were taken to establish a permanent medical service to maintain the troops in good health and hygienic conditions. As the territorial conquests grew and soldiers moved farther and farther away from the Italian peninsula, it was no longer possible to resort to civilian doctors settled in towns. Military strategists, including the Emperor Augustus, became aware of the need for medical staff to be incorporated within the various military units of the army. Alongside these measures, treatment areas were built in permanent camps, in particular the *ualetudinarium*, which served as a hospital for the wounded, sick and

※ Translated by Alexander G. Mitchell, subsequently revised by Jon Wilcox.

1 Veg. Mil. 3.2: *Nunc, quod uel maxime prouidendum est, quemadmodum sanitas custodiatur exercitus, admonebo* (trans. is mine).

recovering soldiers.² This paper will focus on the Roman army's medical staff. Initially I will address the various posts, staffing, and recruitment issues. Then, based on an onomastic analysis, I will try to establish the legal status and origin of a number of individuals, an issue which has hardly been addressed in the few studies on the subject. My study, despite a few limitations and discrepancies in the epigraphic evidence, will help dispel some misconceptions such as the Greek origin of most military doctors.

An historian interested in military medicine has few literary sources to work with. No text on military medicine has survived to this day. It is also unlikely that there ever was a treatise entirely devoted to this subject, but rather collated passages in medical treatises on other subjects, such as surgery (Celsus, Galen, Rufus of Ephesus, Paul of Aegina).

Galen, however, does refer to two military doctors. The first is a certain Antigonus, doctor of the camp, who invented a remedy to soothe headaches.³ The second reference is to Axius, an eye specialist in the Britannia fleet, who developed a drug to treat eye inflammation, severe itching, and chronic diseases.⁴

Military treaties that address the organisation and the various structures of the army provide little information on how the medical service was run.⁵ Indeed, it is mostly the epigraphic evidence from different media (stone, wooden tablets, papyrus) that delivers the most important, however fragmentary, information enabling us to reconstruct as faithfully as possible the organisation and roles of the army's medical service. I have listed a total of 108 entries referring to the entire medical staff, including the doctors, of course, but also nurses and administrative staff.⁶ The corpus of inscriptions consists mostly of epitaphs, followed by numerous votive inscriptions, as well as some honorific inscriptions and correspondence tablets.

According to the inscriptions, all military units of the army (legions, auxiliary troops, fleet, the Roman garrison, etc.) had doctors and medical staff within their ranks, although it is probable that there were disparities between the different units according to their prestige and importance. An immediate

2 For matters relating to the *ualetudinarium*, see Bader (2012); Baker (2004: 83–114); Wilmanns (1995: 103–116).

3 Gal. *De comp. med. sec. loc.* 2.1 (12.557 K.).

4 Gal. *De comp. med. sec. loc.* 4.8 (12.786 K.). See Jackson (1988: 82).

5 Vegetius (*Mil.* 3.2) mentions the presence of doctors in the military ranks and insists on the importance of hygienic conditions in camps, whereas Pseudo-Hyginus (*Mun. castr.* 4) describes the location of the *ualetudinarium* in marching camps.

6 Juliane C. Wilmanns (1995), in her comprehensive study, had listed 93 inscriptions for the entire medical staff.

challenge in the study of the Roman army's medical service is identifying the number of staff working within each unit. Epigraphic evidence provides limited information regarding this aspect, with the exception of two honorific inscriptions, set up by the second and fifth *cohortes uigilum* in 210 A.D., both of which mention among their dedicants the names of four doctors.⁷

Given how formal these inscriptions were, one could suggest that this number corresponded to the typical number of doctors on staff within the *cohortes uigilum*. As each cohort was made of about 1000 men in the early third century, we can estimate that there was one doctor for approximately every 250 soldiers. It is unclear whether this relatively high proportion was the same in other military units, as the *cohortes uigilum* consisted in specific units, first because of their commitment to ensure the continuous safety of Rome, and also because of their distribution throughout the city and even beyond its boundaries.⁸ It is therefore highly likely that other army units had fewer doctors per number of soldiers, but the sources are mute on this point. As mentioned already by several scholars,⁹ one can take the ratio of one doctor per 500 soldiers, which corresponded to the theoretical number of soldiers in a legionary or an auxiliary cohort, or even to some units in the Roman garrison. But this estimate is speculative and remains hypothetical because the proportion of doctors and staff varied based on current events and the political situation.

But to build a trustworthy and efficient medical service, the army had to recruit qualified medical staff¹⁰ and, apparently, could do so in three ways.¹¹ They could enlist civilian doctors, who were already trained and had some experience, on a long-term basis, and incorporate them into units. They became soldiers in their own right with an identical status to the rest of the troop. In funerary inscriptions, this means of recruitment is recognisable for doctors in their twenties (between 23 and 26 years of age) who served for a limited period (17 days to 5 years) because these individuals certainly already had a medical training upon recruitment, by the age of twenty.¹²

7 *CIL* 6.1059; *CIL* 6.1058 and *CIL* 6.31234.

8 See Davies (1989: 214); Wilmanns (1995: 67).

9 See Wilmanns (1995: 70); Rémy/Faure (2010: 51).

10 All technical terms relating to medical staff are explained in the appendix.

11 See Wilmanns (1995: 70–73).

12 See *CIL* 3.14216,9 (Marcus Valerius Longinus, *medicus legionis*, who lived for 23 years); *CIL* 7.690 (Anicius Ingenuus, *medicus ordinarius*, who lived for 25 years); *CIL* 10.3599 (Lucius Lollius Valens, *medicus manipularis*, who lived for 25 years (?) and served for 17 days); *CIL* 6.3910 (Titus Flavius Euprepes, *medicus duplicarius*, who lived for 25 years).

A second option was to hire civilian doctors for a limited amount of time so they did not become soldiers in the strict sense of the law. These doctors, unlike soldiers, had no obligation to serve for a term. They were paid and had a contract which varied according to each individual, current needs, and circumstances. This means of recruitment was apparently mainly used in cases of *force majeure* when the numbers of medical staff were insufficient.

In the epigraphic evidence, it is difficult to identify these civilian physicians who are under contract except by the fact that they had to be freeborn citizens to be eligible to serve as soldiers in a legion. Thus freedmen or peregrine doctors who worked in the legions did not have a military status; they practiced medicine as civilian doctors under contract.¹³ Marriage might be another determining factor, because soldiers were not allowed to marry until the concession granted by Septimius Severus in 197 A.D.¹⁴ It is therefore likely that the military doctors who were married before this dynasty and who had not completed their compulsory service were civilian doctors because they could not have been *milites* in the strict sense of the law.¹⁵

Finally the army could train simple soldiers in the medical arts. This training was taught in the camp's *ualetudinarium* by qualified medical staff enlisted in the army.¹⁶ Doctors who were both *medici* and *milites* were recruited this way.¹⁷

The medical service was composed primarily of doctors (*medici* or ἰατροί)¹⁸ with different titles according to their incorporation (*medicus legionis, cohortis, alae, uexillationis, castrensis/castrorum*), rank or pay (*medicus ordinarius, duplicarius, manipularis*).¹⁹ Some were specialised in a particular medical

and served for 5 years); *CIL* 11.29 (Sextus Arrius Romanus, *medicus duplicarius*, who lived for 26 years and served for 5 years).

13 Examples, see *IG* 14.2547; *AE* 1969/70, 291; *CIL* 3.11215; *CIL* 13.5208.

14 See Herodian, *History of the Empire since the Death of Marcus-Aurelius* 3.8, 5. See Jung (1982); Behrends (1986).

15 See Wilmanns (1995: 88). Examples: see *CIL* 3.11215; *CIL* 6.2532; *CIL* 13.5208; *AE* 1923, 14.

16 We find nurses in training (*discentes capsariorum*) among the *collegium* of the *ualetudinarium* in Lambaesis; see *CIL* 8.2553 and *CIL* 8.18047. See *infra* n. 29.

17 The term *miles* precedes *medicus* in the three inscriptions we know of. This could mean that this man was first a "soldier" before becoming a soldier or that the status of soldier was more important than that of "doctor." See *CIL* 3.14347, 5; *CIL* 6.3910; *CIL* 13.7943.

18 Out of the 108 inscriptions in my corpus, eighty-five relate to physicians, with ninety-two references. The Latin terminology is predominant with seventy-seven occurrences (83.7 %), versus fifteen Greek occurrences (16.3 %).

19 On these matters, see Domaszewski (1967²: XV); Davies (1969: 84–95); Nutton (1969: 267); Wilmanns (1995: 75–88); Baker (2004: 42–45); Rémy/Faure (2010: 50–54).

area,²⁰ such as surgery (*medicus chirurgus*), ophthalmology (*medicus ocularius*) or veterinary medicine (*medicus ueterinarius*).²¹ The doctors could rely on the nursing staff that assisted them in their various tasks.²² Among them, the *capsarii*, so called because they carried a round box (*capsa*), which likely contained sanitary materials (bandages, dressings, instruments, etc.), were probably medical orderlies.²³ As for the *marsi*, known only in the *Legio III Augusta* stationed at Lambaesis, they specialised in the treatment of snakebites and scorpion stings.²⁴

Finally, the medical service had within its ranks administrative and procurement staff, such as the *librarius*, who was responsible for accounting and patient registries in the *ualetudinarium*,²⁵ the *seplasiarius*, who managed the supply of oils, perfumes and medicine,²⁶ or the *pequarii*, whose precise function remains unclear, but who were in contact with beasts of burden, which might have been used to transport the wounded.²⁷

According to Vegetius,²⁸ the *praefectus castrorum* was responsible for doctors, military patients, and medical care-related expenses in the camps. Yet, this camp prefect only acted as an overseer and did not intervene directly in the administration of health care. His deputy, the *optio ualetudinarii*, was probably the real manager of the hospital's administration and operations as well as of all the care provided in the camp.²⁹ In some units like the Fleet and the

20 Medical specialists are a rare breed; we only know of one *medicus chirurgus* (*AE* 1945, 62), one eye specialist (*Gal. De comp. med. sec. loc.* 4.8 (12.786 K.)), four animal doctors (*CIL* 3.11215; *CIL* 6.37194; *AE* 1990, 670; *CIG* 5117), and one *medicus clininus*, who apparently specialised in visiting bedridden patients (*CIL* 6.2532).

21 On animal doctors, see Adams (1995: 59–65).

22 On the ten inscriptions referring to nursing staff, I have counted twelve occurrences.

23 See Davies (1989: 212); Wilmanns (1995: 121); Baker (2004: 43).

24 See Cagnat (1913: 1, 192–193).

25 A wooden tablet from *Vindolanda* (Tablet 154, *Vindolanda Inventory* n° 88.841) describes the staff of *Cohors I Tungrorum*. On the eighteenth of May, of the 752 members of the unit, 296 are present, but thirty-one are unfit for active service because of an illness (15), wounds (6), suffering from an inflammation of the eyes (10). See Bowman/Thomas (1994: 154).

26 See Davies (1989: 212); Baker (2004: 45).

27 See Wilmanns (1995: 243).

28 *Veg. Mil.* 2.10.

29 An inscription from Lambaesis describes a *collegium* within the *ualetudinarium* of a camp. The *optio ualetudinarii* managed it as well as the staff which worked for the military hospital such as the *capsarii*, the *marsi*, the *pequarii*, the *librarius*, and the *discentes capsariorum*. See *CIL* 8.2553 and *CIL* 8.18047.

cohortes uigilum, it is plausible that the *optio conualescentium* replaced the *optio ualeitudinarii* because these units did not have a centralised hospital.³⁰

As noted by some authors, the army's doctors and nursing staff certainly had thorough training and extensive experience. We can assume that there was no standardised medical training in the army's medical service because doctors had different backgrounds. The training of military doctors was probably hardly different from that received by civilian doctors, with the exception of some specific aspects related to the treatment of war wounds, especially in the field of surgery. Obviously all military doctors did not share the same level of training, thus the quality of care could vary based on the incorporation, the status, and the origin of doctors.

Regarding these last issues, only a detailed onomastic study can help determine the legal status of an individual and therefore his place in society because the Roman name defines a family background, a geographic origin, and a legal status all together.

First the doctors, the group most often referred to in the inscriptions. In my study I counted ninety-two instances of doctors (*medicus* / ἰατρός), but the names of six of them are either too fragmented or missing and thus cannot be taken into account in the analysis. Only forty-three doctors are referred to in the traditional *tria nomina* form (*praenomen*, *gentilicium* and *cognomen*), and twenty-four in the *duo nomina* form (gentilice and cognomen). The relatively small number of *tria nomina* can be explained by the predominance of the *duo nomina* form from the second half of the second century A.D., and the fact that several documents (19) consist in letters written on wooden tablets or graffiti, where one only referred to a person by a single name, often the cognomen. But a unique name may also be that of a peregrine or a slave,³¹ thus complicating the identification of their legal status.

Based on their names, most of the listed military doctors were Roman citizens, which should not come as a surprise as citizenship was required if one was to be incorporated into the legions, the praetorian guard, or the urban cohorts. But not all were *ingenuus*, that is to say, "freeborn": some were certainly freedmen, and in the field of medicine this often pointed to a Greek origin. Differentiating between freeborn citizens and freedmen in inscriptions is not easy. Indeed, references to filiation and tribe confirming an individual's freeborn status are rare because this sort of information was superfluous in a society where almost everyone knew the identity and legal status of the deceased or dedicants. Only four doctors mention their filiation, and among

30 See Wilmanns (1995: 119–120; 170–172).

31 See Rémy/Faure (2010: 40).

these, only one mentions his tribe.³² But other doctors were certainly freeborn because this status was required for all units except for *cohortes uigilum* and the fleet.

In our corpus of inscriptions, only one doctor mentions his freedman status, although this was a common practice in the first century which tended to fade later on. His name was Cliternius Lucius. He died at the age of fifty and was an animal doctor, possibly in a legion. He was a freedman of Lucius, married, with one daughter.³³ A now-lost inscription from Vindonissa (Windisch) refers to the epitaph's dedicant as a *patronus* which suggests that the deceased was indeed a freedman, in this case Hymnus Tiberius Claudius, a doctor in the twenty-first legion, freed by a Roman named Tiberius Claudius Atticus and married to Claudia Quieta, who was also formerly a slave.³⁴ Both freedman doctors incorporated in the legions arguably practiced their art as contracted civilian doctors because their servile origin did not allow them to serve as soldiers in the legions.

Other criteria enable us to identify freedmen doctors. When the *gentilicium* is based on an imperial name, this often indicates the acquisition of citizenship by Roman imperial privilege, especially in order to integrate certain army units such as the legions.³⁵ And, in our corpus of inscriptions, twenty-four doctors have precisely an imperial *gentilicium* (*Iulius*, *Claudius*, *Flavius*, *Ulpus*, *Aelius Aurelius*, etc.) frequently combined with Greek nicknames, which would suggest that some of them were freedmen and not freeborn citizens.

As already shown by a number of epigraphists,³⁶ a Greek name is a clue to identifying a freedman. Indeed, slaves often received a Greek name from their master. But it was also common—and more so in the medical field—for a cultured freeborn citizen to choose a Greek nickname for his descendants to show his interest in the sciences. Some doctors took the name of a famous practitioner such as Asclepiades, Hippocrates, or Herophilus, and this name was thereafter intertwined with the family's medical tradition.³⁷ This practice is well-known among civilian doctors: we are only aware of one medical officer of the *Legio II Traiana* named Asclepiades.³⁸

32 A certain Publius Fulvius, son of Quintus, from the Quirina tribe, a veteran of the twelfth legion and a doctor. See Rizakis (1998: n. 151, 200).

33 See *CIL* 3.11215.

34 See *CIL* 3.5208.

35 See Hirt (1987: 101).

36 See Kajanto (1968); Solin (1971); Rémy/Faure (2010: 40).

37 On this subject, see Solin (1995).

38 See *CIG* 4766.

Having tried to conduct the most rigorous analysis possible, I obtained the following results: first, I was not able to determine with much accuracy the legal status of eight doctors (9.3%) because of their unique names. I found a predominance of sixty-eight Roman citizens (79.1%), against ten Peregrine (11.6%), and zero slaves.³⁹ Yet, one can surmise that they resorted to slaves in cases of major epidemics or military unrest, just like civilian doctors who lived near garrisons. Of the sixty-eight doctors who were citizens, thirty-eight were likely freeborn (55.9%), while thirty seem to have been freedmen (44.1%).

Although these results must be considered with caution, they provide some indication of the legal status of military doctors. As might have been expected, the majority of practitioners were Roman citizens except for a few *peregrini*, often of Greek origin, some of whom served as contracted civilian doctors as they did not have the proper legal status to be incorporated into certain army units. The predominance of freeborn doctors over freedmen doctors is surprising in that it contradicts the evidence from Roman authors such as Pliny (*Nat.* 29.17) who states that “despite the profits that it [i.e. the art of medicine] generates, only a very small number of Romans chose this line of work, and it soon passed into the Greek camp, as only those who use Greek wield any authority in this profession, even among ignorant people and those who do not know the language.” Yet, the presence of many freeborn doctors in the military compared to freedmen doctors, who seem to have precedence in the civilian context,⁴⁰ can be explained by specific rules of military law and recruitment.

Occurrences of medical orderlies are much more limited. I listed twelve, but only seven have a more or less complete name which can be used in an onomastic analysis.⁴¹ Two individuals are named according to the traditional *tria nomina*, while the other five follow the *duo nomina* form. Thus, based on their names, we can assume that they were all Roman citizens. Just like the doctors, indications of filiation and tribe as well as freedmen status are missing from the inscriptions. Yet, based on their names, four appear to have been freeborn, whereas three were certainly freed by a Roman citizen.⁴²

Occurrences referring to administrative staff and the management of the medical service amount to seventeen; fourteen have a full name, among which

39 This reflects in part the results of the detailed study by Bernard Rémy and Patrice Faure on the doctors of the western provinces of the empire; see Rémy/Faure (2010: 41–43).

40 See Korpela (1987: 35–36, 43, 56–58, 69–70, 89, 110–111); Rémy/Faure (2010: 43).

41 Out of the twelve occurrences, seven refer to *capsarii*, one to *discentes capsariorum*, and four to *marsi*. Among those who share a full name, we find four *capsarii* and three *marsi*.

42 The three *marsi* were probably freeborn, whereas among the *capsarii*, three were freedmen and only one freeborn.

eleven share a *tria nomina* and one a *duo nomina*.⁴³ Two unique *seplasiarii* names are known from two wooden tablets; their legal status is difficult to determine (citizen or peregrine), but they were clearly soldiers.⁴⁴ All the others were Roman citizens. Three were careful enough to indicate their filiation and among these, two also mentioned their tribe, thus confirming their freeborn status.⁴⁵ There is no clear evidence of freedman status. Basing my analysis on the names, I estimate that in addition to the three confirmed freeborn individuals, another six were also freeborn citizens and three were freedmen.

To determine the origin of a doctor or a member of the medical service, we can hardly count on the explicit mention of their origin by the terms *ex natione*, *domu*, or an adjective formed from the name of a city or region because these references are rarely found.⁴⁶ Only an onomastic study, which takes into account the legal status of an individual, can help to estimate the approximate origin of a person, but in most cases we have to settle for a simple distinction between a Latin or Greek origin. For doctors, basing my inquiry on previous considerations regarding their legal status and analysing more precisely their *gentilicium* and especially their nickname, I was able, in most cases, to determine their origin. Of the sixty-five complete or slightly fragmentary *gentilicia*, the only local *gentilicium* belonged to a Bononius Gordus, doctor of the camp in Lyon, whose name is entirely Gallic.⁴⁷ All other doctors have a Latin *gentilicium*. This result is not surprising because freedmen were accustomed to take a Latin *gentilicium*, often with an imperial origin. We find a clear example of this phenomenon in our corpus where twenty-four doctors have an imperial *gentilicium*.

43 Out of seventeen occurrences, nine refer to *optiones ualetudinarii*, three to *optiones conualescentium*, three to *seplasiarii*, and one to a *librarius* and *pequarii*. Among those who share a full name, we find eight *optiones ualetudinarii*, three *optiones conualescentium*, and three *seplasiarii*.

44 See Bowman/Thomas (2003: 37–39), n° 586; Tomlin (1991: 299–300), n° 24; Rémy/Faure (2010: 189–192).

45 See *CIL* 6.175; *CIL* 9.1617; *AE* 1937, 181.

46 The origin of nine individuals is known. The doctors: Ostia (*CIL* 13.6621), Drobeta Turnu Severin (*CIL* 3.14216,9), Cilicia (*CIL* 10.3443), and Africa (*CIL* 3.3583); the nursing staff: Samosata (Samsat) (*RIU* 1153) and Timgad (*AE* 1917/18, 29); the administrative staff: Aquileia (*AE* 1917/18, 118) and Praeneste (Palestrina) (*AE* 1937, 181); and a soldier who was certainly a doctor (his tomb contained a representation of medical instruments): Ravenna (*AE* 1903, 376).

47 See *CIL* 13.1833; Wilmanns (1995: 184–185), n° 37; Rémy/Faure (2010: 139–141), n° 43; on the name: Delamarre (2007: 45; 105).

We know the *cognomina* of eighty-three doctors. Latin nicknames are predominant with thirty-eight occurrences (45.8%), slightly ahead of the thirty-five Greek nicknames (42.2%). The share of local *cognomina* ($3 \times 1.2\%$) is similar to the *gentilicium* in that it is very low with one Gallic *cognomen* (Gordus), one Egyptian (Serapammon), and one Syrian (Malchus).⁴⁸ In the case of seven doctors, I was unable to determine their origin since their legal status was uncertain because of their unique name, which could have belonged to a citizen or a peregrine.

Thus, despite popular belief and in contrast to civilian doctors, Greek doctors were not predominant in the Roman army. The predominance of Latin doctors is easily accounted for if one considers the specific requirements relating to legal status when it came to military recruitment, as mentioned above. This said, the medical contingent of Greek origin was well represented in the army, especially among the troops stationed in Rome, where we find eleven doctors with a Greek nickname against six with a Latin nickname. The reason for so many Greek doctors in the Roman garrison is to be found in two honorific inscriptions dedicated by the *cohortes uigilium* that refer to six Greek doctors. In addition, a number of epigraphic and literary texts attest to the presence in Rome of a large number of doctors of Greek origin who were often freedmen. In other units, the distribution between doctors with a Latin *cognomen* and those with a Greek *cognomen* is still dominated by the Latin names, with the exception of auxiliary troops, where they were found in equal numbers.⁴⁹

One should of course remain cautious: the origin of a doctor's name is not sufficient evidence to assert that he was actually born in that region. For example, many Greeks lived in Italy and in the western provinces in the imperial age, a period that is particularly relevant to this study. Examples include Marcus Rubrius Zosimus, a doctor in the *cohors IIII Aquitanorum equitata ciuium Romanorum*, who bore the *tria nomina* of which the *cognomen* (Zosimus) was of Greek origin. Yet, he was originally from Ostia and was medically trained in the area around Rome and not in Greece.⁵⁰ Finding a name of Greek origin in a multicultural port such as Ostia is hardly surprising. It is interesting to note that Zosimus was stationed in Germania on the Rhenan Limes and not in his native region. A Roman citizen, his name associated a

48 For Gordus, see below; for Serapammon, see P. Rylands Library 206a; Wilmanns (1995: 235–236), n° 80; for Malchus, see *AE* 1933, 44; Wuthnow (1930: 70–71).

49 I have identified in the legions seventeen Latin surnames versus ten Greek surnames; in the fleet: seven Latin surnames versus three Greek surnames; in the auxiliary troops: eight of each.

50 See *CIL* 13.6621; Wilmanns (1995: 197–199), n° 48; Rémy/Faure (2010: 158–159), n° 57.

Latin *gentilicium* with a Greek *cognomen*. Thus Zosimus may have had servile origins and hence was potentially a freedman. A funerary inscription from Messina gives us another example of a Roman citizen of Greek origin: C. Terentius Symphorus, *medicus chirurgus* in the *cohors III praetoria*.⁵¹ His *cognomen*, very common in Sicily, suggests he was of Greek origin, perhaps from Messina, a city founded by Greek colonists. His father also wore a *cognomen* (Syntrophus) of Greek origin. The inscription does not describe his training, thus we do not know whether he was trained before entering the army, in Sicily or Greece according to his origins, or whether he was trained in the Roman army.

Regarding the nursing staff, among the six known *gentilicia*, all have Latin *gentilicia*, including four imperial *gentilicia*. As for the nickname, there is a clear majority of Latin *cognomen* with six occurrences versus one Syrian-Semitic *cognomen* (Bauleus).⁵² One *capsarius*, Aelius Munatius, and one *mar-sus*, Titus Flavius Ianuarius, have indicated their origin: the first bears a Latin *cognomen* formed from a popular *gentilicium* in Asia Minor and is a native from Samosata (Samsat) in Commagene, while the second is from Timgad in Numidia.⁵³

The origin of the medical administrative staff is no different: Latin names are predominant. The twelve known *gentilicia* all consist in Latin names, including five imperial *gentilicia*. As for their nicknames, of the thirteen known *cognomina*, nine are Latin, two Greek, and two are of unknown origin. Thus, compared to the doctors, we find fewer individuals with a Greek origin within the army's nursing staff and medical administrative staff. This is hardly surprising for the military administrative staff, where there is a clear predominance of Latin names, but a little more surprising for the nursing staff since they performed medical functions akin to those of the doctors.

Military doctors had no reason to be envious of civilian practitioners because they had distinct privileges. Practicing medicine in the army was appealing from a financial point of view because enrolled doctors received a regular salary. In addition they did not need to worry about a regular clientele because there was no lack of wounded, sick, or recovering soldiers. In addition to this comfortable situation, the tasks performed by military doctors were varied and required a high level of knowledge; practitioners had to be able to manage complex surgical operations often due to severe trauma (setting fractures and dislocations, trepanations, amputations, etc.) and to deal with the

⁵¹ See *AE* 1945, 62; Wilmanns (1995: 148), n° 4.

⁵² See *CIL* 3.13386; Wuthnow (1930: 35).

⁵³ See *ILS* 9169 = *RIU* 1153; *AE* 1917/18, 29.

daily care of soldiers suffering from diseases, epidemics, or physical ailments, but they also made sure the camps were clean and hygienic to keep the troops healthy for the greater safety of the empire.

After completing their years of service, which varied from one individual to the next, some military doctors could certainly remain within the army, for their help and experience were invaluable. Despite their advanced age, they could always care for the wounded and the sick, but also train soldiers who aspired to become doctors. Other military doctors decided to leave the army, but continued to practice medicine in civilian life because they had acquired and accumulated numerous techniques and skills during their many years of service, and their training was hardly different from that of civilian doctors. The practitioner of the *domus* “del chirurgo” in Rimini, a certain Eutyches according to a graffito, was likely to have been trained in the army, where he acquired extensive experience in surgery and bone treatment, which is inferred from the many tools found at the site.⁵⁴

A lost registration from Viterbo reports that Marcus Ulpius [Tele]Sporus was first a physician in the *ala Indiana Gallorum* in Germania Superior, then in the *ala III Asturum* in Mauretania Tingitana, and finally worked as a civilian doctor in Ferentium (Ferento) (*medicus salariarius ciuitatis Ferentiensium*), where he was paid by the city, presumably as a public doctor.⁵⁵ Just like soldiers, military doctors therefore had the opportunity to change units during their years of service, and they could travel through much of the empire like the famous Dioscorides, a doctor, pharmacologist, and botanist of Greek origin who lived during the first century A.D. He was most likely a military physician under Claudius and Nero as suggested in the preface of his treatise.⁵⁶ We do not have details of his incorporation or his exact role in the Roman army, but as he belonged to a relatively wealthy class, it is plausible that he travelled alongside characters of high rank such as generals, officers, and even the emperor during military campaigns.⁵⁷

The army’s medical doctors, nursing staff, and administrative staff attested in our corpus belonged to society’s middle class, with an income which allowed them to pay for votive and funerary inscriptions. Some of them had one or two freedmen at their disposal, and certainly a number of slaves. But it is difficult to determine their wealth and social class based on the ostentatious aspect of

54 See Ortalli (2009: 37–41).

55 See *CIL* 11.3007.

56 *De materia medica* (*On Medicinal Substances*) *praef.* 1.4.

57 Wilmanns (1995: 250) thinks that the Emperor Claudius may have requested Dioscorides to carry out certain tasks in the army’s medical service, in particular to inspect hospitals.

inscriptions. Yet, some epitaphs were inscribed on large objects such as sarcophagi, with decorative sculpture, in relatively precious materials. Practicing medicine in the army could be a means of social promotion in a city's public life. This could lead to honours and privileges such as *ornamenta decurionalia* awarded by the *municipium* of Drobeta Turnu Severin to Marcus Valerius Longinus, doctor of the *Legio VII Claudia*. He was only twenty-three years old.⁵⁸

In summary, the analysis of this corpus of over a hundred inscriptions helped to express certain trends. For instance, the Roman army had within its ranks doctors with different legal statuses and backgrounds who were not all from Greece as previously thought. The predominance of freeborn citizens with Latin names must be noted as this seemed to be specific to the military context. Nevertheless, military doctors had nothing to envy of civilian practitioners, as to practice medicine in the army was prestigious, rewarding, and above all very instructive as noted in the *Hippocratic Corpus*.⁵⁹ Besides, the observations by ancient writers regarding these doctors are generally positive, as most testimonials describe their reputation and expertise. Even Galen praises them highly—especially Antigonius for his remedy against headaches or Axius the eye-specialist.⁶⁰ However, all army doctors did not share the same level of competence as we know that there were differences between doctors in pay and in rank, which necessarily involved differences in competencies and training.⁶¹ As for the quality of care, it could vary based on the incorporation, status, and origin of the doctors. But I think it would be a mistake to rely entirely on the origin of a doctor to determine their level of training and skills as some researchers have done in the past, believing that the Greek name of a doctor implied necessarily that the practitioner was highly trained.⁶² We must remain cautious regarding this concept of origin as it does not help us to identify a type of training or a set of medical practices.

58 See *CIL* 3.14216,9; Wilmanns (1995: 222–224), n° 70. The inscription does not detail the reasons for bestowing these honours. As Longinus was quite young, he probably came from a well-to-do middle-class family from Drobeta, with at least the census to fulfill the responsibilities of the *ordo decurionum*.

59 *Hp. Medic.* 14 (9.218–221 L.).

60 See below.

61 See Wilmanns (1995: 130).

62 See Davies (1969: 85); Davies (1972: 2): “Once more the Greek name of the doctor is an indication of medical ability, . . . The Greek name and the fact that the dedication is written in Greek reveal a well-qualified doctor.”

Appendix: Roman Army's Medical Staff Members Attested in Epigraphic and Literary Sources

TABLE 1 *The Doctors*

Title	Function	Incorporation
<i>medicus / iatros</i>	doctor (probably civilian under military contract)	legions, <i>auxilia</i> , <i>equites singulares Augusti</i> , wing and <i>numerus</i>
<i>medicus legionis</i>	doctor of the legion	legions
<i>medicus cohortis</i>	doctor of the cohort	Roman garrison (<i>cohortes praetoriae</i> , <i>cohortes urbanae</i> , <i>cohortes uigilum</i>) and <i>auxilia</i>
<i>medicus alae</i>	wing doctor	wings
<i>medicus uexillationis</i>	detachment doctor	legion
<i>medicus castrensis / castrorum</i>	doctor of the camp	<i>cohors urbana</i> and <i>equites singulares Augusti</i>
<i>medicus chirurgus</i>	doctor specialised in surgery	<i>cohors praetoria</i>
<i>medicus clinicus</i>	doctor specialised in visiting bedridden patients	<i>cohors praetoria</i>
<i>medicus ueterinarius</i>	doctor specialised in veterinary medicine	<i>cohortes praetoriae</i> , <i>auxilia</i> and legion (?)
(<i>medicus</i>) <i>ocularius</i>	doctor specialised in ophthalmology	fleet
<i>miles medicus</i>	foot soldier doctor	legions and fleet
<i>medicus ordinarius</i>	doctor with seemingly the status and privileges of a centurion	legions, <i>auxilia</i> and <i>numerus</i>
<i>medicus duplicarius</i>	doctor receiving double pay	fleet
<i>medicus manipularis</i>	doctor with the rank of <i>manipularis</i>	fleet

TABLE 2 *Nursing Staff*

Title	Function	Incorporation
<i>capsarius</i>	nurse	legions, <i>auxilia</i> and <i>numerus</i>
<i>discentes capsariorum</i>	nurses in training	legion
<i>marsus</i>	specialist in the treatment of snakebites and scorpion stings	legion

TABLE 3 *Administrative Staff*

Title	Function	Incorporation
<i>librarius</i>	accounting and archival clerk of the <i>ualetudinarium</i>	legion
<i>pequarius</i>	responsible for the beasts of burden and thus probably for the transport of the wounded	legions, wing
<i>seplasiarius</i>	responsible for the supplies in perfumes and medicine	legions, <i>auxilia</i>

TABLE 4 *Executive*

Title	Function	Incorporation
<i>praefectus castrorum</i>	Camp prefect, responsible for doctors and patients	legions
<i>optio ualetudinarii</i>	in charge of the <i>ualetudinarium</i>	Roman garrison (<i>cohors praetoria</i> [?], <i>cohors urbana</i> , <i>equites singulares Augusti</i>), legions
<i>optio conualescentium</i>	Responsible for recovering soldiers	<i>cohors uigilum</i> and fleet

Bibliography

- Adams, J.N. (1995), *Pelagonius and Latin Veterinary Terminology in the Roman Empire*, Leiden/New York/Cologne.
- (1987), *Archéologie et médecine* (7^e Rencontres internationales d'archéologie et d'histoire d'Antibes, 23–25 octobre 1986).
- Bader, P. (2012), "L'implantation des espaces de soins dans les camps permanents de l'armée romaine," in: Palmieri (ed.), 227–247.
- Baker, P.A. (2004), *Medical Care for the Roman Army on the Rhine, Danube and British Frontiers in the First, Second and Early Third Centuries A.D.*, Oxford.
- Behrends, O. (1986), "Die Rechtsregelungen der Militärdiplome und das die Soldaten des Prinzipats betreffende Eheverbot," in: Eck/Wolff (eds.), 116–166.
- Bowman, A.K./Thomas, J.D. (1994), *The Vindolanda Writing-Tablets: Tabulae Vindolandenses*, 2, London.
- /Thomas, J.D. (2003), *The Vindolanda Writing-Tablets: Tabulae Vindolandenses*, 3, London.
- Cagnat, R. (1913), *L'armée romaine d'Afrique et l'occupation militaire de l'Afrique sous les empereurs*, 2 vol., Paris.
- Davies, R.W. (1969), "The *medici* of the Roman Armed Forces," *Epigraphische Studien* 8, 83–99.
- (1972), "Some More Military *medici*," *Epigraphische Studien* 9, 1–11.
- (1989), *Service in the Roman Army*, Breeze, D./Maxfield, V.A. (eds.), Edinburgh.
- De Carolis, S. (ed.) (2009), *Ars medica. I ferri del mestiere. La domus "del Chirurgo" di Rimini e la chirurgia nell'antica Roma*, Rimini.
- Delamarre, X. (2007), *Nomina Celtica antiqua selecta inscriptionum. Noms de personnes celtiques dans l'épigraphie classique*, Paris.
- Domaszewski, A. von (1967²), *Die Rangordnung des römischen Heeres*, Cologne, 2nd edition corrected by Brian Dobson, (1908¹), Bonn.
- Eck, W./Wolff, H. (eds.) (1986), *Heer und Integrationspolitik. Die römischen Militärdiplome als historische Quelle*, Cologne/Vienna.
- Hirt, M. (1987), "Le statut social du médecin à Rome et dans les provinces occidentales sous le Haut-Empire," in: *Archéologie et médecine*, 95–107.
- Jackson, R.P.J. (1988), *Doctors and Diseases in the Roman Empire*, London.
- Jung, J.H. (1982), "Das Eheverbot der römischen Soldaten," in: *Aufstieg und Niedergang der römischen Welt* 2.14, 302–346.
- Kajanto, I. (1968), "The Significance of Non-Latin Cognomina," *Latomus* 27, 517–534.
- Korpela, J. (1987), *Das Medizinalpersonal im antiken Rom. Eine sozialgeschichtliche Untersuchung*, Helsinki.
- Nutton, V. (1969), "Medicine and the Roman Army: A Further Reconsideration," *Medical History* 13.3, 260–270.

- Ortalli, J. (2009), "Archeologia e medicina. La casa del 'Chirurgo riminese,'" in: De Carolis (ed.), 21–46.
- Palmieri, N. (ed.) (2012), *Conserver la santé ou la rétablir. Le rôle de l'environnement dans la médecine antique et médiévale* (Actes du colloque international, Centre Jean Palerne, Université Jean Monnet de Saint-Étienne, 23–24 octobre, 2008).
- Rémy, B./Faure P. (2010), *Les médecins dans l'Occident romain (Péninsule ibérique, Bretagne, Gaules, Germanies)*, Paris.
- Rizakis, A.D. (1998), *Achaïe, 2. La cité de Patras. Épigraphie et histoire*, Paris.
- Solin, H. (1971), *Beiträge zur Kenntnis der griechischen Personennamen in Rom*, 1, Helsinki.
- (1995), "Die sogenannten Berufsamen antiker Ärzte," in: van der Eijk/Horstmanshoff/Schrijvers (eds.), 1: 119–142.
- Tomlin, R.S.O. (1991), "Roman Britain in 1990, 2. Inscriptions," *Britannia* 22, 293–311.
- van der Eijk, Ph.J./Horstmanshoff, H.F.J./Schrijvers, P.H. (eds.) (1995), *Ancient Medicine in its Socio-Cultural Context* (Papers read at the congress held at Leiden University, 13–15 April 1992), 2 vol. Amsterdam/Atlanta.
- Wilmanns, J.C. (1995), *Der Sanitätsdienst im Römischen Reich. Eine sozialgeschichtliche Studie zum römischen Militärsanitätswesen nebst einer Prosopographie des Sanitätspersonals*, Hildesheim.
- Wuthnow, H. (1930), *Die semitischen Menschnamen in griechischen Inschriften und Papyri des vorderen Orients*, Leipzig.

PART 2

Medical Practice and Theory



Pneumatism in Seneca: An Example of Interaction between Physics and Medicine

Frédéric Le Blay

Abstract

The reading of Seneca's works is of the greatest interest for the history of ancient medicine since this Stoic philosopher makes extensive use of medical comparisons and references with regard to ethics and epistemology. Seneca should therefore be considered as an indirect but important witness to the tracing of medical doxography. The study of his *Problems in Nature* (*Naturales Quaestiones*), as they are based on a pneumatical etiological system, shows the complexity of the relationship between medical and philosophical schools. It also brings new light on some of the treatises from the *Hippocratic Corpus*.

The history of medicine used as an analogical and metaphorical pattern in moral philosophy is a long one.¹ The works of the Stoic philosopher Seneca contain numerous references to medical theories and practice, most of them dealing with the prevention and cure of passions. His *Letters to Lucilius* (*Ad Lucilium epistulae morales*) also reveal a strong interest in physical health as a way to protect the soul against solicitations coming from the body, in accordance with Stoic ethics.² But more than a rhetorical device, the interaction between these two theoretical fields has a heuristic value when medical knowledge and etiology give other sciences possible explanations to understand the cosmos and natural phenomena. The *Problems in Nature* of Seneca set a perfect example of a philosophical treatise dealing with medical theories.³

In this meteorological treatise, the philosopher claims that *spiritus*—the Latin translation of the Greek πνεῦμα (*pneuma*)—is the universal agent; it plays the main role in most natural phenomena and seismic activity in particular.

※ Translation revised by Todd F. Black and Jon Wilcox.

1 Among a quite extensive bibliography, see Schuhl (1960); Joly (1961); Vegetti (1966); Longrigg (1963); Jaeger (1957); Nussbaum (1986).

2 About medicine and the body in Seneca, see Chambert (2002); Migliorini (1988).

3 See Le Blay (2005).

Such a theoretical position is not original since the pneumatic explanation seems to be endowed by opposing philosophical systems, as we will see with the Epicurean philosopher Lucretius. Even Aristotle, whose meteorology is based on the exhalation—*ἀναθυμίασις* (*anathymiasis*)—theory, opens the path to the pneumatic etiology. But in Seneca's physical system, air is central: it surrounds our world and gives shape to it (*Nat.* 2.4.1); its main characteristic is cohesion and unity (*Nat.* 2.2.1–3; 2.4.2; 2.6.2–6; 2.8.1; 2.9.1–4); it does not contain any void (*Nat.* 2.7.1–2); its composition is not made up of atoms (2.6.2); it is subject to changes and variations (*Nat.* 2.9.1–4; 2.11.1–3; 2.14.2); it moves spontaneously (*Nat.* 5.5.2; 5.6.1); its power and strength are considerable (*Nat.* 6.17.1–2); and it is both a component and a part of the universe (*Nat.* 2.4.1–2; 2.6.1). Such declarations are in accordance with Stoic orthodoxy.⁴ They are also aimed at debunking the Epicurean theory of void since *unitas* is presented as *spiritus* essential characteristic:

Esse autem unitatem in aere uel ex hoc intellegi potest quod corpora nostra inter se cohaerent. Quid enim est aliud quod teneat illa quam spiritus (*Sen. Nat.* 2.6.6)?⁵

That there is unity in air can be realized also from the cohesiveness of our bodies. What holds them together? Air (trans. by Corcoran).

4 French (1994: 172) defines Seneca's project in such terms: "Thus Seneca turned to meteorology not because it was recognised part of Greek philosophy (with which he was not impressed) or because Aristotle had written on it. He turned to it in the first place because it centred on one of the four elements—air—of which the world was composed." Though this definition oversimplifies the philosopher's project, it is relevant to the central part played by air in Seneca's cosmic representations. In that sense, Seneca is a follower of his Stoic predecessors. See Sambursky (1959: ch. 1 and 2).

5 Ed. Hine (*Bibliotheca scriptorum Graecorum et Romanorum Teubneriana*, Stuttgart/Leipzig, 1996). The author uses both *aer* and *spiritus* when he refers to the same entity that Greek authors would refer to as *pneuma*. And also *Nat.* 2.6.2: *Hunc quidam ex distantibus corpusculis, ut puluerem, struunt plurimumque a uero recedunt. Numquam enim nisi contexti per unitatem corporis niscus est, cum partes consentire ad intentionem debeant et conferre uires. Aer autem, si in atomos inciditur, sparsus est; tendi uero disiecta non possunt*, "Some authorities construe that the atmosphere is made up of separate bodies, as dust is; but they are greatly mistaken. For effort can never exist in a body unless the body is held together by unity, since the components need to work in harmony and to assemble their strength for tension. But if the atmosphere is cut up into atoms it is scattered. Moreover, separated bodies cannot be in tension" (trans. Th.H. Corcoran, The Loeb Classical Library, London/Cambridge MA, 1971–1972).

Tension—*intentio* in Latin, *τόνος* (*tonos*) in Greek—is the property which gives this element its capacity to work on every other entity and makes it the universal agent. In Epicurean physics, air is made out of separate corpuscles and permeates every porous thing. Porosity is in fact one of the fundamental principles of Epicurus' system of nature; it has to do with its atomistic conception of matter. Chapters six to nine of *Problems in Nature* Book 2 are dedicated to the demonstration that such a conception is impossible and that the observation of physical and natural phenomena offers sufficient proof to assert the opposite Stoic view.⁶ According to this long demonstration, based on the enumeration of various examples, *spiritus* gives strength to every living being. As an example, roots, when they grow, are able to dislocate walls, since life, even in its vegetative state, is characterised by its irresistible strength.⁷ Muscular strength is also explained by the tension of air within nerves, its action on the body being compared to its visible effects on trees, buildings, or seas:

Quid? cursus et motus omnis, nonne intenti spiritus opera sunt? Hic facit uim neruis, uelocitatem currentibus; hic, cum uehementer concitatus ipse se torsit, arbusta siluasque conuouit et aedificia tota corripiens in altum frangit; hic mare per se languidum et iacens incitat (Sen. *Nat.* 2.6.4).

Well, what about running and all motion? Are they not the effects of air in tension? twists upon itself, carries off trees and woods, snatches up entire buildings and shatters them. Air stirs up the sea, which is quiet and motionless by itself (trans. by Corcoran).

As usual in this treatise, the focus analogically shifts from physiology to meteorology. H. M. Hine⁸ states as a hypothesis that this passage reveals a medical influence on Seneca: he therefore refers to *Sacred Disease* (*De morbo sacro*) in the *Hippocratic Corpus*, but also to Plato's *Timaeus*.⁹ While we agree with this general hypothesis, we are less convinced by the medical and philosophical sources that the scholar cites. As we will show, among the *Hippocratic Corpus*, *Breaths* (*De flatibus* [6.88–115 L.]) would be a far more appropriate reference.

6 On this discussion about pores opposing Stoics and Epicureans, see Le Blay (2010).

7 Sen. *Nat.* 2.6.5.

8 Hine (1996).

9 84d–85a. It is not a medical treatise indeed but a text whose theoretical ground could partly be medical.

And if this demonstration of the power of *spiritus* has medical grounds, it is more tempting to draw a parallel with the pneumatic school.

Athenaeus of Attalea laid the foundations of his new medical aetiology in his treatise *On Remedies* (Περὶ βοηθημάτων), in which he supposedly borrowed the Stoics' pneumatology. According to F. Kudlien,¹⁰ Athenaeus had been a student of Poseidonios of Apamea and several aspects of his psychological and physiological system derive directly from his professor's teachings. Poseidonios being one of Seneca's more important sources in the writing of the *Problems in Nature*, there should be no reason to question the Stoic philosopher's intellectual familiarity with the pneumatic school of medicine. Furthermore, Athenaeus, although the first pneumatist, cannot be considered as the founder of the school itself. Agathinus of Sparta, which Galen often refers to in relation to the pulse, is in fact known as its historical founder. He was close to L. Annaeus Cornutus and his reputation as a doctor was considerable under Nero's reign. One cannot doubt that Seneca held him among his acquaintances. In such a cultural and historical context, things seem to be quite simple, and there should be no need for a further inquiry into Seneca's medical sources. The close relationship between medical Pneumatism and Stoic physics is no longer a matter of discussion.¹¹ Nonetheless, we would like to introduce a few remarks in order to disrupt this doctrinal harmony.

The link one may establish between medical and philosophical theoretical systems is not always as strong as it may seem. Of this, we may give two examples. It has traditionally been stated that Methodist medicine was close to the philosophy of Epicurus since its original and fundamental ground was related to atomism. This point has recently been discussed by Ph. van der Eijk who showed that the methodist Caelius Aurelianus could claim other epistemological affiliations.¹² The same remark applies to Sextus Empiricus, who was both a philosopher and a doctor: in his *Outlines of Pyrrhonism* (Πυρρόωνειοι ὑποτυπώσεις), he suggests, in a very polemical way, that pyrrhonist philosophers interested in a medical career should turn to Methodism, which has a closer relationship to scepticism than medical empiricism.¹³ He adds that empiricism as a strong tendency to dogmatism.

Even though he considers himself as a perfect and orthodox Stoic philosopher, Seneca, like most of contemporary Roman intellectuals, shows a certain amount of eclecticism in his doctrinal approach. His *Letters to Lucilius* reveal

¹⁰ Kudlien (1962; 1968).

¹¹ See also Kudlien (1974).

¹² van der Eijk (1999).

¹³ S.E. 241 (Bury, R.G. [ed.] [1933], The Loeb Classical Library, London/New York).

his knowledge of Methodism and his interest in its hygienic prescriptions.¹⁴ As far as medical science is concerned, it is rather difficult to determine what Seneca's affiliation could be. As he was not a practitioner, there was no obligation for him to be adept of any specific doctrine. His works testify that he was at least aware of the two new doctrines which were competing with each other in his time: Methodism and Pneumatism. His ethics are more concerned with the first one; his meteorology, being based on a pneumatic aetiology, deals preferably with the second one. At least two passages of the *Problems in Nature*, where the philosopher gives his explanation of earthquakes, could have been directly inspired by medical Pneumatism:

Corpus nostrum et sanguine irrigatur et spiritu, qui per sua itinera decurrit. Habemus autem quaedam angustiora receptacula animae per quae nihil amplius quam meat, quaedam patentiora in quibus colligitur et unde diuiditur in partes. Sic hoc totum terrarum omnium corpus et aquis, quae uicem sanguinis tenent, et uentis, quos nihil aliud quis quam animam uocauerit, peruium est. Haec duo aliubi currunt, aliubi consistunt. Sed, quemadmodum in corpore nostro, dum bona ualetudo est, uenarum quoque imperturbata mobilitas modum seruat; ubi aliquid aduersi est, micat crebrius et suspiria atque anhelitus laborantis ac fessi signa sunt, ita terrae quoque, dum illis positio naturalis est, inconcussae manent; cum aliquid peccatur, uelut aegri corporis motus est, spiritu illo qui modestius perfluebat icto uehementius et quassante uenas suas (Sen. *Nat.* 6.14.1–2).

Our body is irrigated by blood; also by air, which runs along by its own routes. However, we have some rather narrow receptacles for breath through which air does nothing more than pass, others wider in which the air is collected and from there distributed to the parts of the body. In the same way this whole body of the entire earth is a passage way both for water, which takes the place of blood, and for winds, which you might call simply respiration. These two elements run together in some places, are stationary in other places. But in our body the movement of the veins also preserves its rhythm undisturbed while there is good health but when there is something wrong the movement pulses more rapidly and inhaling and exhaling give signs of effort and exhaustion. In the same way the earth remains unshaken as long as its condition is normal. When something is wrong, then there is motion just like that of a sick body,

14 See Gourevitch (1974).

because the air which was flowing through it in an even pattern is struck violently and causes its veins to shake (trans. by Corcoran).

Corpora quoque nostra non aliter tremunt quam si spiritum aliqua causa perturbat, cum timore contractus est, cum senectute languescit et uenis torpentibus marcet, cum frigore inhibetur aut sub accessionem cursu suo deicitur. Nam, quamdiu sine iniuria perfluit et ex more procedit, nullus est tremor corpori; cum aliquid occurrit quod inhibeat eius officium, tum parum potens in perferendis his quae suo uigore tendebat, deficiens concutit quicquid integer tulerat (Sen. *Nat.* 6.18.6).

Our bodies also do not tremble except when some cause disturbs the air inside, when it is contracted by fear, grows weak in old age, becomes feeble with sluggish veins, is paralysed by cold, or is thrown from its normal course under an attack of disease. For, as long as the air flows without damage and proceeds in its usual way, there is no tremor in the body; when something happens which inhibits its function, then it no longer is strong enough to support what it had maintained in its vigour. As it fails it causes to collapse whatever it had sustained when it was intact (trans. by Corcoran).

As mentioned above, things would appear as simple as that if Seneca's pneumatical aetiology was specific to his meteorological system. It is precisely not the case; as far as surviving testimonies can tell, Pneumatism appears as a common aetiology to every theoretician after Aristotle. Book 6 of Lucretius' *On the Nature of Things* (*De rerum natura*) has to be read as a summary of Epicurean meteorology as it deals with, for example, thunder, lightning, clouds, rain, earthquakes, volcanoes, oceans, and rivers. In order to explain seismic phenomena, Lucretius describes the earth and its depths as a network of canals and cavities through which water and air are constantly passing and moving.¹⁵ Then, two fluids are responsible for earthquakes, a duality which is very close to what Seneca stated in 6.14.1–2. The passage about subterranean flows and their effects is a very short one.¹⁶ It is followed by a far more detailed description of subterranean winds, which therefore are given as the main and most powerful agent:

¹⁵ Lucr. 6.535–542.

¹⁶ Lucr. 6.552–556.

Praeterea uentus cum per loca subcaua terrae
 collectus parte ex una procumbit et urget,
 obnixus magnis speluncas uiribus altas,
 incumbit tellus quo uenti prona premit uis.

Quod nisi respirent uenti, <uis> nulla refrenet
 res neque ab exitio possit reprehendere euntis.
 Nunc quia respirant alternis inque grauescunt,
 et quasi collecti redeunt ceduntque repulsi,
 saepius hanc ob rem minitatur terra ruinas
 quam facit; inclinatur enim retroque recellit,
 et recipit prolapsa suas in pondere sedes.

Est haec eiusdem quoque magni causa tremoris,
 uentus ubi atque animae subito uis maxima quaedam
 aut extrinsecus aut ipsa tellure coorta
 in loca se caua terrai coniecit, ibique
 speluncas inter magnas fremit ante tumultu
 uersabunda<que> portatur, post incita cum uis
 exagitata foras erumpitur, et simul altam
 diffindens terram magnum concinnat hiatum.

Quod nisi prorumpit, tamen impetus ipse animai
 et fera uis uenti per crebra foramina terrae
 disperitur ut horror, et incutit inde tremorem;
 frigus uti nostros penitus cum uenit in artus,
 concutit inuitos cogens tremere atque mouere (6.557–595, Bailey, C., ed.;
 Oxford, 1947).

Besides, when a wind gathering together through the hollow places beneath the earth throws itself forward from one quarter, and bears hard, thrusting with great force into the lofty caverns, the earth leans over in the direction of the wind's headlong force. . . Yet if the winds should never abate, no force could curb the world back or hold it back in its rush to perdition. As it is, because in turns they abate and gather force, and rally as it were and come back and then are driven back in retreat, for this reason the earth more often threatens to fall than it does fall; for it inclines forward and then again springs back and after tumbling forward recovers its proper place in equilibrium. . . . There is also another cause of the same great trembling, when wind or a very great force of air, either from

without or arising within the earth itself, has thrown itself suddenly into the hollow places of the earth, and there in the great caverns first growls tumultuously and is carried whirling about, afterwards the force thus excited and driven outwards bursts forth, and at the same time cleaving the earth asunder makes a great chasm. . . . But there is no breaking forth, yet the impetuous air itself and the furious force of wind is distributed abroad through the many interstices of the earth like an ague, and thus transmits the trembling; just as, when cold penetrates deep into our limbs, it shakes them, making them tremble and quake against our will (trans. by Ferguson Smith, The Loeb Classical Library, Cambridge MA/London, 1975).

Lines 591–595 also rely on a physiological analogy, comparing earthquakes with the shivering of the body when it is cold. The same comparison is used by Seneca, as seen above (6.18.6), except that this bodily reaction is not a reaction to cold but the effect of a pathological state.¹⁷ Another passage from the *Problems in Nature* seems actually to be a critique against those lines from Lucretius:

Immo, inquit, ceu, cum frigore inhorruimus, tremor sequitur, sic terras quoque spiritus extrinsecus accidens quassat. Quod nullo modo potest fieri. Algere enim debet, ut idem illi accidat quod nobis, quos externa causa in horrorem agit. Accidere autem terrae simile quiddam nostrae affectioni, sed non ex simili causa concesserim. Illam interior et altior iniuria debet impellere (Sen. *Nat.* 6.24.4).

“But no!” he says. “When we shiver with cold, a trembling is the result. So also air coming from outside causes the earth to shake.” This cannot happen to the earth at all. For the earth ought to feel cold so that the same thing happens to it as happens to us when an external cause produces a shuddering. I would agree that something similar to our condition occurs to the earth, but from a different cause. An interior injury has to afflict the earth deep inside (trans. by Corcoran).

Seneca wants to refute the hypothesis of air coming from outside the earth and able to shake it. Such a phenomenon would be possible indeed if the earth had

¹⁷ Such a comparison is also drawn by Aristotle in the *Meteorologica* (2.8.366b 14–30), the philosopher making the distinction between different forms of earthquakes and relating them to the various shiverings of the body. Cold is not involved in Aristotle either.

a porous surface, as in the Epicurean theory. As it is not the case, the only air involved in seismic activity comes from inside, the earth being naturally full of it.¹⁸ The attack could have Lucretius and the Epicureans as a target. But in this passage, *inquit* ("he says") does not refer to them but to Poseidonios, who had developed such an explanation.¹⁹ The main reproach the philosopher addresses to Poseidonios is to turn the physiological analogy into an assimilation of the earth to a living being. One cannot help being struck by the fact that Lucretius' account looks closer to the theory held by Poseidonios, a Stoic, than Seneca's, who undoubtedly had Poseidonios as one of his sources of inspiration and models. We might find here another indication of the strong influence Poseidonios' teaching had on his contemporaries, whatever philosophical obedience they could claim. The general agreement on the pneumatic aetiology we observe in the main textual witnesses of post-Aristotelian meteorology could be part of this influence. It would be by conclusion very difficult to establish the necessary link between Pneumatism—whether it is a meteorological or a medical pattern—and Stoicism, even though Poseidonios' physics had a Stoic ground.

When quoting Hine's remarks about Seneca's medical models,²⁰ we referred to the Hippocratic treatise known as *Breaths*²¹ as a possible illustration of the medical theories Seneca might have had in mind while writing his books on meteorology. This work, which did not appear on the list of authentic treatises established by Erotian in the first century A.D., is very controversial when it comes to its origins and theoretical background.²² Most scholars agree on a high dating (late fifth–early fourth century B.C.), locating the writing of this theoretical treatise in the same period as the oldest and most authentic Hippocratic texts. The author, a practitioner, starts by exposing the conditions and general method of his practice and then gives an explanation of the nature and effects of breaths, for they are the principal agents of pain and disease. As a preliminary state to this aetiological system, one has to recognise that air is the main agent in the world:

18 This critic against the idea of air and breath passing through the skin from the outside to the inside has also to do with a medical debate, which Seneca probably knows, the theory of double respiration (pores and respiratory organs). On this question see Le Blay (2010).

19 See Sen. *Nat.* 6.14.3. Diogenes Laertius also gives a short account of this theory attributed to Poseidonios (7.154).

20 See above n. 8.

21 *De flatibus* (6.91–115 L.).

22 On this discussion see Ducatillon (1983).

Now bodies, of men and of animals generally, are nourished by three kinds of nourishment, and the names thereof are solid food (σιτία), drink (ποτά) and wind (πνεῦμα).²³ Wind in bodies is called breath; outside bodies it is called air (πνεῦμα δὲ τὸ μὲν ἐν τοῖσι σώμασι φῦσα καλεῖται, τὸ δὲ καλεῖ ἔξω τῶν σωμάτων ὁ ἀήρ). It is the most powerful of all and in all, and it is worthwhile examining its power. A breeze is a flowing and a current of air. When therefore much air flows violently, trees are torn up by the roots through the force of the wind, the sea swells into waves, and vessels of vast bulk are tossed about. Such then is the power that it has in these things, but it is invisible to sight, though visible to reason. For what can take place without it? In what is it not present? What does it not accompany? For everything between earth and heaven is full of wind. Wind is the cause of both winter and summer, becoming in winter thick and cold; and in summer gentle and calm. Nay, the progress of sun, moon, and stars is because of wind; for wind is food for fire, and without air fire could not live. Wherefore, too, air being thin causes the life of the sun to be eternal. Nay, it is clear that the sea, too, partakes of wind, for swimming creatures would not be able to live did they not partake except by inhaling the air of the water? In fact the earth too is a base for air, and air is a vehicle of the earth, and there is nothing that is empty of air (κενέον τε οὐδέν ἐστιν τούτου) (3.1–3, trans. by Jones [1923] The Loeb Classical Library, London/New York).

The tracing of pre-Socratic doctrines in the *Hippocratic Corpus*, one of the main paths in the study of the relationship between medicine and philosophy according to Jouanna and Magdelaine,²⁴ has shown that this demonstration of the primacy of air was linked to the theories of Anaximenes of Miletus and Diogenes of Apollonia. The similarity of this demonstration with several passages from the *Problems in Nature* is striking. Seneca describes in the same way the effects of air on trees or the sea as proof of its power.²⁵ Even if air is invisible, the observation of nature convinces everybody of its existence: for the

23 Jouanna, one of the main editors of the text (Collection des universités de France, Paris, 1988) observes that Cicero (*Nat. deor.* 2.54) makes the same statement: *Nam cum tribus rebus animantium in uita teneatur, cibo, potione, spiritu*, “As for living beings, life relies on three elements, solid food, drink and breath” (my translation). Book 2 of this theological treatise is an exposition of the Stoic doctrine.

24 Jouanna/Magdelaine (1999: 49). See also Longrigg (1989; 1993).

25 Sen. *Nat.* 2.6.4.

practitioner as well as the philosopher, visual evidence is the way to assert, by induction, the existence of a universal agent.

The idea that air permeates everything, leading to the necessary consequence that no void can exist, is a perfect Stoic declaration. Chronology, however, makes a Stoic influence impossible for this Hippocratic treatise.²⁶ Because of its unexpected content among the *Hippocratic Corpus*, this writing has been neglected and given a marginal position. For a long time it has been considered as a minor text—its length is indeed quite modest—without importance, until the discovery, at the end of nineteenth century, of a major witness, the so-called *Anonymus Londiniensis*. Being one of the rare examples of an autograph writing from antiquity, its discovery was such an event that it was promptly published.²⁷ Partly based on a doxographical ground, it exposes different theories about the cause of disease; when it comes to Hippocrates, it refers to what seems to be a commentary from Aristotle to explain that breaths are the main pathological agent.²⁸ Vital breath would be the most necessary and powerful element inside our body, since health or disease is related to its state and internal movements. Nonetheless the author recognises that, according to Hippocrates of Cos, disease may have multiple causes and cannot be linked to a pneumatic explanation alone; diet is also involved. Manetti²⁹ has demonstrated that the author had direct knowledge of Hippocratic writings: several passages indeed are paraphrased readings of *Breaths* (*De flatibus*).³⁰ Moreover the chronology scholars propose for the writing of this document makes it

26 Kudlien (1974) and Diller (1936; 1959) made the assumption that the Hippocratic treatise *Nutrient* (*De alimento*) (9.94–121 L.) was related to Pneumatism and, indirectly, to Stoicism. In his edition of the treatise, Joly (Collection des universités de France, 1972, p. 129–138) dates its writing to an earlier period and argues against a Stoic influence.

27 This long papyrus (3.5 m.) contains 39 columns and 23 fragments of a rather informal and personal writing. The text shows numerous corrections, additions and stylistic changes. It could date back to the second half of first century A.D. and come from Hermopolis (same as the famous Constitution of Athens from Aristotle), even though the exact circumstances of its excavation remain unknown. On this papyrus, see Manetti (1986; 1994). It was first published by H. Diels (*Anonymi Londiniensis ex Aristotelis Menoniis et aliis medicis eclogae*, G. Reimer, Berlin, 1893). The reference edition is now D. Manetti, *Anonymus Londiniensis, De Medicina*, Berlin/New York, 2011.

28 On the presence of Aristotle in this writing, see Manetti (1999). The author appears to be an Aristotelian writer. The existence of a medical doxography written by Menon and attributed to Aristotle has long been established; however we do not know if this Meno is the same as the one known as Aristotle's student or a later disciple.

29 Manetti (1999).

30 Manetti also notes that his interpretation of the Hippocratic treatise is quite approximate on some level: the author considers breath as a product of an incomplete digestion of

contemporary to the writing of the *Problems in Nature*: it might have been written between first and second centuries A.D., for a large dating, and probably in the second half of first century according to papyrologists' precise observations. We can then locate these two texts in the same intellectual and cultural context. Though the striking similarities we find in both of them could be interpreted as a mere coincidence, the fact that both of them value the role of breath in nature as well as in physiology cannot be ignored.

Coming to this point of our inquiry about Pneumatism, we cannot reach a doctrinal conclusion. It seems impossible to demonstrate whether the pneumatic school of medicine had a decisive influence on the writing of Seneca's *Problems in Nature* or not. We should rather consider that Pneumatism had a large influence as a general aetiological model on Latin authors. Poseidonios' writings might have played an important part in the adoption of *spiritus* as a universal agent in post-Aristotelian meteorology. Lucretius, his contemporary, may be the first witness to this influence—which, as one knows, was strong and durable in the Roman world: nevertheless he was not a Stoic. But as we do not have any other testimony of Epicurean meteorology besides his *On the Nature of Things* (*De rerum natura*), we cannot tell whether Lucretius was a close follower of Epicurus in this theoretical field or if he introduced new patterns. Aristotle's meteorological system is also at stake in this general agreement on *pneuma*.³¹

Epistemological comparisons between the different fields of knowledge prove to be very useful for our understanding of ancient sciences. Moreover the study of analogical connections they built between each other may be one of the most promising methods for the tracing and reconstruction of doctrinal traditions. But the example of Seneca's *Problems in Nature* shows that there is no simple evidence in such an inquiry. Even though historical and epistemological links seem to connect medical and philosophical schools together—Methodism and Epicurism, Pneumatism and Stoicism, the careful reading of sources often reveals a more eclectic landscape, especially when one turns to Roman writers who, like the Stoic Seneca, had a very wide range of literary references at their disposal and an open conception of doctrinal orthodoxy.

nutriments whereas the author of *Breaths* (*De flatibus*) ranks air amongst the nutriments themselves, as well as solid or liquid ailments.

31 See Le Blay (2005).

Bibliography

- Boucher, J.-P./Turcan, R./Morel, J.-P./Gros, P./Lavagne, H. (eds.), *Mélanges de philosophie, de littérature et d'histoire ancienne offerts à Pierre Boyancé*, Rome.
- Chambert, R. (2002), "Voyage et santé dans les *Lettres* de Sénèque," *Bulletin de l'Association Guillaume Budé*, 63–82.
- Diller, H. (1936), "Ein stoisch-pneumatische Schrift im *Corpus Hippocraticum*," *Sudhoffs Archiv für Geschichte der Medizin und der Naturwissenschaften* 29, 178–195 (= Diller, H. [1973], *Kleine Schriften zur antiken Medizin*, Baader, G./Grensemann, H. [eds.], Berlin, 17–30).
- (1959), "Der innere Zusammenhang der hippokratischen Schrift *De uictu*," *Hermes* 87, 39–56.
- Ducatillon, J. (1983), "Le traité *Des vents* et la question hippocratique," in: Lasserre/Mudry (eds.), 263–276.
- French, R.K. (1994), *Ancient Natural History: Histories of Nature*, London/New York.
- Gourevitch, D. (1974), "Le menu de l'homme libre. Recherches sur l'alimentation et la digestion dans les œuvres en prose de Sénèque le Philosophe," in: Boucher/Turcan/Morel/Gros/Lavagne (eds.), 311–344.
- Hine, H.M. (1996), *Studies in the Text of Seneca's "Naturales Quaestiones"*, Stuttgart.
- Jaeger, W. (1957), "Aristotle's Use of Medicine as Model of Method in His Ethics," *Journal of Hellenic Studies* 77, 54–61 (= Jaeger, W. [1960], *Scripta minora*, 2 vol., Rome, vol. 2, 491–509).
- Joly, R. (1961), "Platon et la médecine," *Bulletin de l'Association Guillaume Budé*, 435–451.
- Jouanna, J./Magdelaine, C. (1999), *Hippocrate. L'Art de la médecine*, Paris.
- Kudlien, F. (1962), "Poseidonios und die Ärzteschule der Pneumatiker," *Hermes* 90, 419–429.
- (1968), "Pneumatische Ärzte," *Paulys Real-Encyclopädie der classischen Altertumswissenschaft. Supplementband* 11, 1097–1108.
- (1974), "Die *Pneuma*-Bewegung. Ein Beitrag zum Thema Medizin und Stoa," *Gesnerus* 31, 86–98.
- Lamacchia, R. (ed.) (1988), *"Munus amicitiae". Scritti in memoria di Alessandro Ronconi*, 2 vol., Florence.
- Langslow, D.R./Maire, B. (eds.), *Body, Disease and Treatment in a Changing World: Latin Texts and Contexts in Ancient and Medieval Medicine* (Proceedings of the Ninth International Conference *Ancient Latin Medical Texts*, Hulme Hall, University of Manchester, 5–8 September 2007), Lausanne.
- Lasserre, F./Mudry, Ph. (eds.) (1983), *Formes de pensée dans la "Collection hippocratique"* (Actes du 4^e colloque international hippocratique, Lausanne, 21–26 septembre 1981), Geneva.

- Le Blay, F. (2005), "Microcosm and Macrocosm: The Dual Direction of Analogy in Hippocratic Thought and the Meteorological Tradition," in: van der Eijk (ed.), 251–269.
- (2010), "Les pores de la peau: une entité physiologique problématique," in: Langslow/Maire (eds.), 25–36.
- Longrigg, J. (1963), "Philosophy and Medicine: Some Early Interactions," *Harvard Studies in Classical Philology* 67, 147–175.
- (1989), "Presocratic Philosophy and Hippocratic Medicine," *History of Science* 27.1, 1–39.
- (1993), *Greek Rational Medicine: Philosophy and Medicine from Alcmaeon to the Alexandrians*, London/New York, ch. 4: "Presocratic philosophy and the *Hippocratic Corpus*."
- Manetti, D. (1986), "Note di lettura dell'*Anonimo Londinese*. Prolegomena ad una nuova edizione," *Zeitschrift für Papyrologie und Epigraphik* 63, 57–74.
- (1994), "Autografi e incompiuti: il caso dell'*Anonimo Londinese* P. Lit. Lond. 165," *Zeitschrift für Papyrologie und Epigraphik* 100, 47–58.
- (1999), "'Aristotle' and the Role of Doxography in the *Anonymus Londiniensis* (PBrLbr Inv. 137)," in: van der Eijk (ed.), 94–141.
- Migliorini, P. (1988), "Osservazioni sulla lingua della medicina in Seneca," in: Lamacchia (ed.), vol. 2, 22–56.
- Mudry, Ph. (ed.) (1999), *Le traité des "Maladies aiguës" et des "Maladies chroniques" de Caelius Aurelianus. Nouvelles approches* (Actes du colloque de Lausanne, 1996), Nantes.
- Nussbaum, M. (1986), "Therapeutic Arguments: Epicurus and Aristotle," in: Schofield/Striker (eds.), 31–74.
- Sambursky, S. (1959), *Physics of the Stoics*, London.
- Schofield, M./Striker, G. (eds.) (1986), *The Norms of Nature: Studies in Hellenistic Ethics*, Cambridge/London/New York/Paris.
- Schuhl, P.-M. (1960), "Platon et la médecine," *Revue des études grecques* 73, 73–79.
- van der Eijk, Ph.J. (1999), "The Methodism of Caelius Aurelianus: Some Epistemological Issues," in: Mudry (ed.), 47–83.
- (ed.) (1999), *Ancient Histories of Medicine: Essays in Medical Doxography and Historiography in Classical Antiquity*, Leiden/Boston/Cologne.
- (ed.) (2005), *Hippocrates in Context* (Papers read at the 11th International Hippocrates Colloquium, University of Newcastle upon Tyne, 27–31 August 2002), Leiden/Boston.
- Vegetti, M. (1966), "La medicina in Platone," *Rivista di storia della filosofia* 21, 3–39.

References to Medical Authors in Non-Medical Latin Literature

Innocenzo Mazzini

Abstract

My contribution focuses on discussing the knowledge Roman non-medical authors had of medical literature. My research suggests that the medical authors known and cited belong mainly to the classical and Hellenistic age. The occasions or reasons for an intellectual in antiquity to turn his attention to medical texts were mainly twofold: to bolster a philosophical or ethical claim, and to confirm medical theories.

Preliminaries

In the present chapter I propose to consider a number of instances in which Latin authors of non-medical works make explicit mention of medical authorities. The aim of the investigation is to assess the level of prestige that medical authors of antiquity enjoyed among Latin-speaking intellectuals, and to see the sorts of functions for which they were used and cited by various non-medical authors and/or in various literary genres.

The study is based on an electronic corpus thoroughly representative of Latin authors and texts, namely all those contained in the CLCLT 5 database (2002 release). The logical basis for the study is the assumption that intellectuals in the ancient world were interested in medicine.

The chapter is articulated in three parts: interest in medicine among the Roman intelligentsia; tendencies and general features of references to medical authorities in non-medical authors; conclusions.

※ Translated by David Langslow and Klaus-Dietrich Fischer, subsequently revised by Jon Wilcox. All translations from Greek and Latin are mine.

1 Interest in Medicine amongst the Roman Intelligentsia

In broad terms it is fair to say that interest in medicine, medical theories, and medical authors is widespread among Roman intellectuals already in the time of Plautus,¹ but that it becomes stronger in the late republic and early empire and is maintained throughout the period of the middle and late empire. There are several conditioning factors which make the knowledge of medical writers both accessible and appealing to Roman intellectuals.

Access to medical knowledge among intellectuals is favoured above all by the following phenomena: the very widespread familiarity of Latin speakers with the Greek language, especially in the imperial period; the ideal of a comprehensive education; the prestige of the art of medicine; the figure of the “doctor-cum-philosopher” (*medicus philosophus*); the figure of the “doctor-cum-friend” (*medicus amicus*); the publication of medical works of a popularising character, or at least intended for lay readers; and the high cultural level of the elite doctor, especially in the early and middle empire.

1.1 Knowledge of Greek

In cultivated literary circles, above all of the Antonine Age, we witness practically a Graeco-Latin *koiné*, even a confluence almost of the two languages, reflected by authors who compose in both languages (Suetonius, Apuleius, Fronto, Favorinus, Aulus Gellius, Tertullian, and others) and who, in works intended for a cultivated readership, such as Gellius in *The Attic Nights* (*Noctes Atticae*), intersperse Greek passages among the Latin.

A telling indication of the knowledge of Greek, at least among the aristocracy, is offered by Quintilian:

A sermone Graeco puerum incipere malo, quia Latinum, qui pluribus in usu est, uel nobis nolentibus perbibet, simul quia disciplinis quoque Graecis prius instituendus est, unde et nostrae fluxerunt. Non tamen hoc adeo superstitiose fieri uelim, ut diu tantum Graece loquatur aut discat, sicut plerisque moris est (*Inst.* 1.1.12).

I would prefer a child to start with Greek, on the one hand because Latin is so common that he will absorb it even against our will, on the other, because he will need instruction in Greek learning first, since our own derives from it. Nevertheless, I am not in favour of following this line so absolutely as to have him only speak Greek or study in Greek for a long time, as most people usually do.

¹ Mazzini (1992b: 67–113).

This habit of introducing young boys to bilingual habits is confirmed for late antiquity by Jerome, in *Letter* 107, addressed to Laeta.

1.2 *The Ideal of a Comprehensive Education*

The ideal of a comprehensive education, an ideal already for Cicero's orator (and then for Quintilian), an ideal for Vitruvius' architect, finds its source and expression for example in the *Arts* (*Artes*) of A. Cornelius Celsus, in Pliny's *Natural History* (*Naturalis historia*), in Gellius' *Attic Nights*, and in Macrobius' *Saturnalia*. And indeed, we see this ideal realised in a wide range of intellectuals, from Lucretius to Cicero, Seneca, Apuleius, Gellius, Tertullian, and many others besides.

1.3 *The Prestige of the Art of Medicine*

Beginning already in the late Republic, there are various indications of a readiness to include medicine among the "liberal arts" (*artes liberales*), or at least to associate it with them. Varro, in the compass of his *Liberal Arts* (*Disciplinae*), devotes a book (the eighth) to medicine, and so places it unequivocally among the other, indisputably liberal arts such as music, geometry, and astronomy, and hence within the framework of a comprehensive educational programme for free men. Seneca refers to medicine (*Epist.* 95.9) as "very liberal art" (*liberissima ars*), in that like philosophy it possesses not only "precepts" (*praecepta*) but also *decreta*, i.e. "theoretical foundations." Seneca's statement here is telling for the position of medicine, even though the expression just quoted is not intended in the technical sense of "liberal art" but rather in that of an art "which frees the soul."² From a passage of doubtful meaning in Plutarch's *On Preserving Health* (*De tuenda uale tudine*) 122e, one may infer either that medicine is not inferior to any of the liberal arts (in which case it is not formally counted among them), or that medicine is in fact one of the liberal arts.³ In any case, we must take it that, given his interest in the field, medicine must reasonably for Plutarch have formed part of the liberal arts. And support, if not for the inclusion of medicine among the liberal arts, at least for its very close association with them, is evinced also by Ovid, who characterises medicine "learned art" (*docta ars*) in *Letters from the Black Sea* (*Epistulae ex Ponto*) 1.3.18 and by

2 On *liberalis* in the sense "liberating" ("liberatorio"), see Bellincioni (1979: 37–42, 236–7).

3 The passage in question can be translated in two ways: "and among the liberal arts medicine is inferior to none in refinement, excellence, and pleasure," or "and medicine is inferior to none of the liberal arts in refinement, excellence, and pleasure." The difference of interpretation depends only on whether the partitive genitive τῶν ἐλευθερίων τεχνῶν is taken with ἱατρική or with οὐδεμίας. See Sensazono (1992).

Quintilian, who asserts, in *Principles of Rhetoric* (*Institutio oratoria*) 2.21.11, that medicine is an art founded on “reason” (*ratio*) and “truth” (*ueritas*).

Another respectful collocation (albeit not that of liberal art) is assigned to medicine by Cicero, in virtue of the “utility” (*utilitas*) thanks to which medicine is a “respectable art” (*ars honesta*) for those whose rank it suits: *On Duties* (*De officiis*) 1.151, and *On the Ends of Good and Evil* (*De finibus bonorum et malorum*) 1.42 and 3.18.⁴

Among the Christians, apart from a few heretics, medicine continues to enjoy a highly honourable status, but essentially because of its utility, as Eusebius states in *Preparation for the Gospel* (*Praeparatio euangelica*) 15.4.

1.4 *The “Doctor-cum-Friend” (medicus amicus)*

The concept of the “doctor-cum-friend” is illustrated for us for the first time by Celsus, and then by Seneca and others, and we find it realised in concrete form from the end of the Republic and throughout the period of the Empire in numerous instances of doctors who are on friendly terms, or at least in contact, with cultivated members of the aristocracy: Asclepiades is a friend of the consul and orator Licinius Crassus; Asclapo of Patras and Sextus Fadius are in contact with Cicero; Antonius Musa is friends with Horace, Statius Annaeus with Seneca; Cleanthes with the Younger Cato, Disarius with Q. Aurelius Symmachus (*Letters* [*Epistulae*] 9.44), and Macrobius *Saturnalia* 7.4.1, Vindicianus with Augustine (*Confessions* [*Confessiones*] 4.3.5); and this list of examples could be extended.

1.5 *Medical Works of a Popularising Character*

Throughout Graeco-Roman antiquity, it is possible to identify among the surviving medical literature a considerable number of works written, whether by doctors or by others, for non-specialists.

Account is certainly taken of the requirements of an educated non-specialist readership by books forming part of wide-ranging encyclopaedias, such as the medical books (20–32) of Pliny’s *Natural History*, or the *On Medicine* (*De medicina*) of Celsus within the scope of the *Arts* (*Artes*); by extensive works offering information on hygiene in a broad sense, such as the *On the Preservation of Health* (*De sanitate tuenda*) of Galen; by writings straddling the boundaries between medicine, philosophy, and ethics, such as the Galenic treatises *That the Qualities of the Soul Depend on the Temperament of the Body* (*Quod animi mores corporis temperamenta sequantur*), or *On the Diagnosis and Cure of the*

4 On the passage from the *De officiis*, and more generally on the ambiguous status of medicine, see now the exhaustive study by F. Stok (1993).

Errors of the Soul (*De propriorum animi cuiuslibet affectuum dignotione et curatione*); by some accounts of public teachings, or rather lectures, such as the two books on anatomy (now lost) requested from Galen by illustrious members of his audience.

The fact that some medical literature was aimed at a non-specialist educated readership finds confirmation not only in the argumentation and style of many works, such as those just mentioned, but also in the identities of the dedicatees, who were often also responsible for commissioning the work: think, for example, of the philosopher Glaucon, for whom and at whose request Galen wrote *Therapeutics to Glaucon* (*Ad Glauconem de methodo medendi*), or of the consularis Boethus, for whom Galen, again, revised the *On the Use of the Breath* (*De respirationis usu*) on the basis of the notes that Boethus' slaves had taken at his lectures on the physiology of respiration.

1.6 *The Doctor as Intellectual: Philosopher, Man of Letters, Poet*

The model of the “doctor-cum-philosopher,” although resisted by certain schools, particularly by the Empirici, becomes increasingly prominent, above all in the Roman period. In medical treatises, the ideal of the “doctor-cum-philosopher” is exalted to varying degrees in various works and by various authors, such as in the late pseudo-Hippocratic *Decorum*, or by Celsus, *On Medicine*, *praefatio* 47, but it is above all in Galen, in particular in the treatise devoted to the theme *The Best Doctor is also a Philosopher* (*Quod optimus medicus sit quoque philosophus*).⁵ Doctors of the imperial period attested as pursuing philosophy as well as medicine include Soranus, Galen and Sextus Empiricus. Doctors attested as men of letters or poets include again Soranus, but also Crito, author of a history entitled *Getic History* (Γετικά); Servilius Damocrates, author of medical recipes in verse; and Marcellus of Side, who composed epigrams and wrote in verse forty-two books of medical arguments.

A concrete example of a doctor (albeit not a writer) with philosophical interests would be Eutyches (early third century A.D.), the surgeon of the *domus* at Rimini. In his house has been found, apart from some telling mosaics, a statue of the Epicurean philosopher Hermarchus of Sarteanus, pupil of Epicurus.⁶ Very probably philosophical interests were cultivated also by the doctor Markios Demetrios of Ostia (third century A.D.), in whose home was discovered a bust of Hippocrates represented as a philosopher, a copy of an original dated to the second century A.D.

⁵ More fully on this argument, Romano (1991: 35–48).

⁶ Ortalli (2009: 31).

2 Tendencies and Approaches of Latin Authors in Mentions of Medical Authorities

Let us examine the medical authorities mentioned by name, pausing to comment on quantitative and qualitative data, i.e. the frequencies of these mentions and their modes and contexts.

2.1 *Quantitative Data*

Of the authors in question, at the head of the list is Hippocrates with fifty-seven mentions, followed by Erasistratus with seventeen, Asclepiades with thirteen, Herophilus with nine, Soranus with nine, Diocles with five, Galen with four, Archigenes with three; mentioned only once are Antonius Musa, Themison, and Dioscorides. In the authors that I have worked through, there is not a single mention of the names of doctors such as Praxagoras, Crateuas, Heraclides of Tarentum, Celsus, Scribonius Largus, Aretaeus, Athenaeus, Thessalus, Leonidas, Rufus of Ephesus, Herodotus, Heliodorus, Vindicianus, Oribasius, Theodorus Priscianus, and others.

Of the authors who make more frequent reference to medical authorities, first place is occupied by Tertullian with twenty-six mentions, second is Aulus Gellius with twenty-one, and thereafter follow Augustine with fourteen, Jerome with twelve, Macrobius with ten, Censorinus with eight, Cicero, Juvenal, Apuleius and Ambrose with three, Varro, Calcidius and Martianus Capella with two, and Horace, Vitruvius, Valerius Maximus, and Cyprianus with one.

2.2 *Qualitative Data*

By “qualitative data” I mean the function that the mentions acquire in their contexts, the modes of citation used (whether the work or the passage in question is indicated), and the presentation of the doctor cited.

2.2.1 Function of the Mentions

The almost exclusive function of the mentions is to support a thesis, which may, for its part, be philosophical/theological or ethical in character, or more strictly medical.

2.2.1.1 *Philosophical/Theological Theses*

The function of supporting a philosophical/theological thesis is by far the most common in Christian writers.

Support for a philosophical thesis can arise from the simple fact that it is shared by a doctor who enjoys high prestige. For example, Tertullian, in

On the Soul (De anima) 15, seeks support for his thesis that it is in the soul that is found the highest level of life and wisdom which he calls ruling power (*principale* or ἡγεμονικόν). He finds such support in, among others, Herophilus, Erasistratus, Diocles, Hippocrates, and Soranus, who for their part contradict the opposing position maintained by the doctors Andreas and Asclepiades:

Sed plures et philosophi aduersus Dicaearchum, Plato, Strato, Epicurus, Democritus, Empedocles, Socrates, Aristoteles, et medici aduersus Andrean et Asclepiaden, Herophilus, Erasistratus, Diocles, Hippocrates et ipse Soranus, iamque omnibus plures christiani, qui apud deum de utroque deducimur, et esse principale in anima et certo in corporis recessu consecratum.⁷

But a sizeable number of philosophers have disagreed with Dicaearchus, that is Plato, Straton, Epicurus, Democritus, Empedocles, Socrates and Aristotle, and likewise a good number of doctors have disagreed with Andreas and Asclepiades, that is Herophilus, Erasistratus, Diocles, Hippocrates and even Soranus, and in even greater number we Christians, who depend in regard to both questions on God, namely that there is a ruling power in the soul and that it is enshrined in a specific part of the body.

The support can come also from the attitude of the famous doctor, as seen in its concrete effects. So, for example, the fact that Hippocrates, and also other famous doctors such as Asclepiades, Erasistratus, Herophilus, and Soranus, killed the unborn foetus before dismembering it is testimony to and confirmation of Tertullian's thesis that the embryo was animate and hence in possession of a soul. See Tertullian, *On the Soul (De anima)* 25:

Hoc et Hippocrates habuit et Asclepiades et Erasistratus et maiorum quoque prosector Herophilus et mitior ipse Soranus, certi animal esse conceptum atque ita miserti infelicissimae huiusmodi infantiae, ut prius occidatur, ne uiua lanietur.⁸

Doctors like Hippocrates and Asclepiades and Erasistratus had this instrument and Herophilus likewise, this cutter-up of even older human beings, and even Soranus, who was of a milder disposition, since they

⁷ Other examples include Tert. *Anim.* 17.

⁸ See also: Hier. *Proph. min.* 2.5.

were convinced that the embryo was a living being and therefore took pity on this most unfortunate infant state so that the child should be killed first, to avoid it being cut up alive.

2.2.1.2 *Ethical Theses*

Ethical theses, too, can receive support from medical theories or from the attitude of the doctor. Jerome, for example, when he cautions against excessive eating, on the grounds that it weighs down the spirit and the mind, or against a diet which increases the imbalances of a given stage of life, adduces in support of his own affirmations the authority of Galen, citing his works expressly by name. In *Against Iovinianus* (*Aduersus Iouinianum*) 2.11 he cites the *Exhortation to the Arts* (*Exhortatio ad medicinam* or *Protrepticus*), and refers in particular to the short lifespan of athletes burdened as it is by excessive intake of food:⁹

Vnde et Galenus uir doctissimus, Hippocratis interpres, athletas quorum uita et ars sagina est, dicit in exhortatione medicinae, nec uiuere posse diu, nec sanos esse: animasque eorum ita nimio sanguine, et adipibus, quasi luto inuolutas, nihil tenue, nihil coeleste, sed semper de carnibus, et ructu, et uentris ingluuie cogitare.

Therefore Galen, a man of consummate erudition and commentator of Hippocrates, says in his *Protreptic to medicine*, that athletes, whose lives and art are aimed at being beefed up, can neither have a long nor a healthy life, and that their souls, wrapped up in excess blood and fat like in mud, can have no heavenly thoughts but must always think of meat, burps, and fattening their bellies.

In *Letter (Epistula)* 54.9 he refers to Περὶ ὑγίεινῶν¹⁰ and recalls the passage where Galen asserts that caloric foods are harmful for adolescents and youths, who, by their nature, possess already abundant heat:

Aiunt medici et qui de humanorum corporum scripsere naturis praecipueque Galenus in libris, quorum titulus est Περὶ ὑγίεινῶν, puerorum et iuuenum ac perfectae aetatis uirorum mulierumque corpora insito calore feruere et noxios esse his aetatibus cibos, qui calorem augeant,

⁹ 8 (1.27 K.).

¹⁰ In fact, *On the Preservation of Health* (*De sanitate tuenda*), or *Hygieinôn lógoi* 1.15 and 5.5 (6.77–80 K. and 6.334–9 K.).

sanitatieque conducere frigida quaeque in esu et potu sumere, sicut e contrario senibus, qui pituita laborent et frigore, calidos cibos et uetera uina prode esse.¹¹

Doctors in general as well as writers on the human body and first of all Galen in his work *On the Preservation of Health* maintain that boys and young people and men and women in the prime of their lives have bodies that are hot from the innate heat and that for people in those age-groups foods are bad that will increase the heat, and that it will be good for their health to consume whatever food and drink is cold, and exactly in the opposite way, that hot foodstuffs and old wines are good for older people, who suffer from phlegm and coldness.

Cicero adduces the attitude of Hippocrates in forbidding the treatment of hopelessly incurably ill patients in order to justify to some degree his own disinterest in public affairs at a moment when it seems to him that any struggle is pointless, see *Letters to Atticus* (*Epistulae ad Atticum*) 16.15.5:

Sed me, mi Attice, non sane hoc quidem tempore mouet res publica, non quo aut sit mihi quicquam carius aut esse debeat, sed desperatis etiam Hippocrates uetat adhibere medicinam.¹²

Dear Atticus, at this point I am certainly not worried about the state, not because I do not love, or should love, anything more dearly, but because even Hippocrates is against trying a cure on people who are too far gone.

2.2.1.3 *Medical Theses*

The function of introducing, or treating, a strictly medical argument, occurs in a particular fashion in the encyclopaedists, or at least in those works of universal culture in which medicine plays an important role: this is the case of, above all, the *Attic Nights* (*Noctes Atticae*) of Aulus Gellius, in Book 16 (3.5–7), where among other things there is explicit mention of Erasistratus and his Περὶ διαίρέσεων and quotation of the passage in Greek:

Haec tum Fauorinus multaque istiusmodi alia adfabilissime dicebat; nos autem postea, cum librum forte Erasistrati legeremus διαίρέσεων primum,

11 Other uses in support of ethical positions are in Ambr. *Noe* 25.92; *Epist.* 6.31.14; Hier. *Proph. min.* 2.11.

12 With reference to *The Art* (*De arte*) 8 (6.13 L.).

id ipsum in eo libro, quod Fauorinum audiebamus dicere, scriptum offendimus. Verba Erasistrati ad eam rem pertinentia haec sunt: Ἐλογιζόμεθα οὖν παρὰ τὴν ἰχυρὰν σύμπτωσιν τῆς κοιλίας εἶναι τὴν φόδρα αἰτίαν· καὶ γὰρ τοῖς ἐπιπλέον ἄσιτοῦσιν κατὰ προαίρεσιν ἐν τοῖς πρώτοις χρόνοις ἢ πείνα παρακολουθεῖ, ὕστερον δὲ οὐκέτι.

Favorinus spoke about this and many other related matters in the most friendly way; when we later by chance were reading Book I of Erasistratus, *Distinctions*, we came across the very thing that Favorinus had spoken about. Erasistratus' words on this account are as follows: We reasoned that the ability to fast for a long time was the result of a forceful collapse of the belly. Proof is that people who choose to go without food for a long time experience hunger at the beginning, but no more later on.

2.2.2 Modes of Citation

The individual doctor can be referred to either directly or indirectly, that is, by way of a passage from another author.

2.2.2.1 Direct Citation

Direct citation is effected either by the simple mention of the doctor's name or with the addition of the title of the medical work, or finally with the latter and with reference to or quotation from the relevant passage.

The majority of direct citations are limited to the name of the doctor, especially when the appeal to him has regard to concepts, theories, or therapies which must have been widely known and have formed part of the cultural heritage of the ancient educated elite. So, for example, this is the case of Cicero recalling Hippocrates' refusal to treat hopeless cases (see above), or of Apuleius referring to the use Asclepiades made of wine, as a medicinal remedy to be administered at the appropriate moment:

Asclepiades ille, inter praecipuos medicorum, si unum Hippocratem excipias, ceteris princeps, primus etiam uino repperit aegris opitulari, sed dando scilicet in tempore: cuius rei obseruationem probe callebat, ut qui diligentissime animaduerneret uenarum pulsus inconditos uel praeuarias (*Flor.* 19.1).¹³

13 For other examples of simple mention of the name, see for example Varro *Men.* fr. 444; Tert. *Anim.* 25; Cens. 12.4; Aug. *Ciu.* 5.2; 22.8.

The famous Asclepiades, one of the best physicians with the exception of Hippocrates alone, was also the first to discover the beneficial effect of wine on the sick, provided it be administered at the right time. He had a knack of monitoring this because he observed the variations and irregularities of the pulse with the greatest possible precision.

The most complete forms of reference, including explicit citation of the work in question, are in general either those occurring in more properly scientific contexts, and hence in works of general culture such as the *Attic Nights* (*Noctes Atticae*), or those in which the opinion—or theory—of the doctor has to do with medical themes which have direct and immediate ethical implications and serve to underline their weight. In any case, the explicit mention of the work is understandably more frequent where the lay author either quotes or paraphrases the passage. So, Gellius mentions Erasistratus' book *On Divisions (of Figures)* (Περὶ διαίρέσεων) in the place where he quotes from it, see above; and similarly Jerome cites three works of Galen, *On Crises* (*De crisibus*), *On Critical Days* (*De diebus decretoriis*), and *On the Preservation of Health* (*De sanitate tuenda*) in the places where he, to some extent, paraphrases passages from them: the first two with regard to the importance of the number seven in the crisis of a disease and the third with reference to the contraindication of caloric foods for persons in the hotter stages of life, youth in particular. See respectively *Comments on the prophet Amos* (*Commentarii in Amos prophetam*) 2.5:

Nouit et hoc saecularis philosophia, et medicorum libri, quorum Galenus disertissimus atque doctissimus scripsit ternos libros, Περὶ κρίσεων καὶ τῶν κριτικῶν ἡμερῶν (*De crisibus* and *De diebus decretoriis*), in quibus septenarii numeri ostendens potentiam, ardentissimas febres septimo dicit solui die; aut si tanta humoris noxii et pituitae fuerit magnitudo, ut primae hebdomadis nequaquam feruore consumpta sit, secundae hebdomadis ultimus exspectatur dies, id est quartus decimus.¹⁴

This phenomenon is also part of secular knowledge and familiar in medical literature, where Galen, a man of great powers as a writer and very learned, composed three books *On Crises* and *On Critical Days*, in which he demonstrated the power of the number seven and declared, by way of an example, that the hottest fevers resolve on the seventh day. Should the strength of the harmful humour and phlegm be so great that it is not

14 *De cris.* 1.4 (9.558–569 K.).

completely used up by the burning heat of the first seven-day period, one should wait for the last day of the second period, i.e., the fourteenth day.

... and the passage quoted above from *Letters (Epistulae)* 54.9.

2.2.2.2 *Indirect Citation*

In some, infrequent, instances, the thought of a medical author is derived indirectly, from an intermediate non-medical source: thus Augustine in *City of God (De ciuitate Dei)* 5.2–5, takes from Cicero the Hippocratic belief according to which two persons suffering the same diseases and having the same pathological history may be twins.

2.2.3 Modes of Presentation of the Medical Author

The ancient medical author is mentioned by non-specialists first and foremost and above all as a scientific source, a source of knowledge, but in some cases his name is used in antonomasia to denote the figure of the professional doctor or even the art of medicine.

2.2.3.1 *The Source of Knowledge*

In the majority of cases, the doctor is simply mentioned by name. However, it is not infrequent for the name to precede or follow attributes and expressions which in some way exalt or diminish the figure and the person of the doctor.

It is undoubtedly Hippocrates who enjoys the greatest prestige, and this fact is underlined by expressions such as: “the well-known Hippocrates” (*ille Hippocrates*, Varro *Rust.* 1.4.5); “a man of divine wisdom” (*diuina uir scientia*, Gell. 17.21.18), “medicine-master” (*medicinae magister*, Ambr. *Epist.* 6.31.12) and “very famous doctor” (*nobilissimus medicus*, Aug. *Ciu.* 5.2; *C. Faust.* 33).

Apuleius (*Flor.* 19.1), in keeping with his characteristically redundant style, exalts Asclepiades in an elaborate appositional phrase which places him in second place after Hippocrates:

Asclepiades ille, inter praecipuos medicorum, si unum Hippocratem excipias, ceteris princeps . . .

The famous Asclepiades, one of the best physicians with the exception of Hippocrates alone . . .

Tertullian characterises Soranus as gentle (*mitis*), in order to underline the gentleness of the therapeutic method typical of the Methodists (*Anim.* 25).

Of Galen, Jerome uses expressions which underline his prestige and knowledge, so in the *Comments on the Prophet Amos* (*Commentarii in Amos prophetam*) 2.5 he characterises him as “very expert of the art of speaking and very learned” (*desertissimus atque doctissimus*), and as “very learned” (*doctissimus*) earlier in the same work 2.11.

It is not always clear that stress on the prestige of the doctor is serving to strengthen a thesis maintained by the non-medical author: in the *Comments on the Prophet Amos*, however, in particular at 2.11, this does seem clear to me, given the importance for Jerome of Galen’s recommendation that hot foods should be avoided by young persons, who are already hot by their nature and hence more exposed to sexual temptations.

The medical author can be presented also in negative terms, and this fact too can serve to provide further confirmation of the thesis maintained by the non-medical writer. It is not by accident that Tertullian characterises Herophilus as a “butcher,” since he is indeed opposed to the dissection of cadavers, which he regards as pointless:

Herophilus ille medicus aut lanius, qui sexcentos exsecuit, ut naturam scrutaretur, qui hominem odiit, ut nosset, nescio an omnia interna eius liquido explorarit, ipsa morte mutante quae uixerant, et morte non simplici, sed ipsa inter artificia exsectionis errante (Tert. *Anim.* 10).

Herophilus, the famous doctor, or should I rather say butcher, who cut open the bodies of persons too many to count in order to discover human nature, he who hated man in order to gain knowledge, was perhaps not able to explore the insides of man perfectly, because death itself changed what until a moment before had been alive, and not a straight and simple death but one that went from one place to the other while the body was being anatomised professionally.

2.2.3.2 *Antonomastic Use*

It is Hippocrates above all, in confirmation of his outstanding reputation among the laity, who is mentioned as a symbol of the art of medicine and of the figure of the doctor. Here are a few instances: the perfect doctor in Vitruvius *On Architecture* (*De architectura*) 1.1.13; the doctor in Jerome, *Against Vigilantius* (*Contra Vigilantium*) 39; doctors in general, in the expression *uincula Hippocratis* for the instruments used by doctors in encounters with sufferers from mental illness (Jerome, *Contra Vigilantium* 4; *Letters* [*Epistulae*] 109.2). Archigenes, too, clearly because of the celebrity he enjoyed at the time, at least

among Juvenal's readers, is mentioned by name on three separate occasions in the *Satires* (*Saturae*) to stand for the figure of the doctor:

Pauper locupletem optare podagram/nec dubitet Ladas, si non eget
Anticyra nec/Archigene.¹⁵ (13.94–96)

Ladas, a poor man, would hardly hesitate to wish for the gout of the rich, provided he is not in need of the ministrations of a Harley Street psychiatrist.

Conclusions

The study conducted so far does not yield firm conclusions in quantitative terms, not least because some literary texts remain yet to be explored. Nevertheless certain patterns have emerged which I believe may be regarded as indicative both of attitudes to medicine among the Roman intelligentsia, and of the function that medical knowledge must have developed in (at least some) Latin literary contexts. The qualitative data considered above (combined with the quantitative indications) allow the following conclusions, here summarised very briefly:

- 1) It is above all the medical literature of the classical and Hellenistic ages that is read and hence known and used;
- 2) Authors of the Roman and imperial periods such as Thessalus, Athenaeus of Attalea, Aretaeus, Scribonius Largus, Herodotus, Leonidas, Rufus of Ephesus, and many others—authors of considerable weight, to judge by the testimony of contemporary or later medical writers such as Celsus, Galen, or Oribasius, or with reference to their surviving works—appear not to have been accepted into the canon of works read by the cultivated man. It seems that the only medical authors of the Roman period accorded serious consideration by intellectuals of the imperial period were Soranus and Galen;
- 3) References to medical authors in non-specialist literature may be either direct or indirect, the former being more frequent. The former citations comprise in the majority of cases a mention of the name and an allusion to the theory or conduct of the medical writer, but sometimes there is also a reference to the work in question, even quotations from it, usually

¹⁵ See also 6.235 and 14.252.

in the original language. This last point on the one hand confirms the ease with which writers of the imperial period and their readers are able to read Greek. On the other hand, it suggests that translations of Greek medical authors were not necessarily common or widespread.

- 4) The main and most frequent purposes of mentions of medical authors by non-specialists is essentially to support and give weight to a broadly philosophical or ethical thesis put forward by the non-specialist writer, or to provide a foundation for the exposition of a medical theory. The former purpose recurs especially (though not exclusively) in Christian writers, and at any rate in writings of a philosophical, religious or rhetorical character; the latter essentially in works of a general (better, universal) cultural stamp;
- 5) The fact that the non-technical literature of the imperial period is hardly aware of medical authors, whether Greek or Latin (with the exceptions of Soranus and Galen), may be taken to confirm the regress, or at least the lack of progress, in science in the Roman and imperial periods compared with the Hellenistic.

Bibliography

- Bellincioni, M. (1979), *Lucio Anneo Seneca, Lettere a Lucilio, libro XV: le lettere 94 e 95. Testo, introduzione, versione e commento*, Brescia.
- De Carolis, S. (ed.) (2009), *"Ars medica". I ferri del mestiere. La domus del chirurgo di Rimini e la chirurgia dell'antica Roma*, Rimini.
- Mazzini, I. (ed.) (1992a), *Civiltà materiale e letteratura nel mondo antico*, Macerata.
- (1992b), "La medicina nella letteratura latina. 3. Plauto: conoscenze mediche, situazione e istituzioni sanitarie, proposte esegetiche," in: Mazzini (ed.) (1992a), 67–113.
- Ortalli, J. (2009), "Archeologia e medicina: la casa del 'chirurgo' riminese," in: De Carolis (ed.), 21–46.
- Romano, E. (1991), *Medici e filosofi. Letteratura medica e società altoimperiale*, Milan.
- Senzasono, I. (1992), *Corpus Plutarchi Moraliū. 12, Precetti igienici*, Naples.
- Stok, F. (1993), "La medicina nell'enciclopedia latina e nei sistemi di classificazione delle *artes* dell'età romana," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 393–444.

At the Crossroads of Greek and Roman Medicine: The Contribution of Latin Papyri

1. Medical Texts; 2. Iatromagical Papyri

Marie-Hélène Marganne and Magali de Haro Sanchez

Abstract

1. Far fewer Latin medical papyri, whether paraliterary, documentary or magical, have survived compared to Greek medical papyri, but they nonetheless provide interesting information about medical practices in the Graeco-Roman world, the relationship between Greek and Latin medical languages, and the choices made to use one rather than the other, a subject that has never been exhaustively studied. As part of the update undertaken by CEDOPAL since 2008 of the *Corpus papyrorum Latinarum*, published fifty years ago by the late Robert Cavenaile, we have inventoried Latin papyri containing medical references, classifying them by type or nature of content, provenance, form, layout, and writing. We finally analyse their content and what it reveals about the reception of Greek medicine by Latin or Latin-speaking writers. 2. The second section presents the only iatromagical papyrus in Latin known at the present time, *P. Heid. inv. lat. 5* (*Suppl. Mag. 1.36, ca. fifth/sixth centuries, Fustat* [?]), and compares its content with that of the Greek iatromagical papyri (dating from the first century B.C. to the seventh century A.D.) on one hand, and on the other hand with iatromagical *formulae* in Latin that have been preserved on metal leaves coming from Italy, Hungary, France, and England.

1 Medical Texts (Marie-Hélène Marganne)

Although they are few in number relative to the Greek medical papyri, of which there are close to 300 literary texts¹ (and the list is far from exhaustive)

※ Translated by the Institut supérieur des langues vivantes of the University of Liège, subsequently revised by Jon Wilcox.

1 In the text and the notes the abbreviation MP³ or Mertens-Pack³ designates the third edition, begun under the direction of the late P. Mertens, founder of the Centre de documentation de papyrologie littéraire (CEDOPAL) at the University of Liège. Since 1999 we have been con-

and several hundred documents, the Latin papyri, whether they are paraliterary, documentary, or magical, provide just as much interesting information about medical practices in the Graeco-Roman world, and the relationship between Greek and Latin medical languages, a subject that has not yet been studied fully.

In the context of the updating (underway at the CEDOPAL since 2008)² of the *Corpus Papyrorum Latinarum* (CPL), published fifty years ago by the late Robert Cavenaile,³ we have tried to make an inventory of Latin papyri that refer to medical subjects, classifying them by type, provenance, form, layout, and handwriting, before analysing their content and what it reveals concerning the reception of Greek medicine by Latin or Latin-speaking writers.

If we search the MP³ database of Greek and Latin literary papyri held by the CEDOPAL for all Latin papyri in the sub-category “Médecine et chirurgie” (“Medicine and Surgery”), we find only one result:⁴

MP³ 3011.01

Account or list of medicinal substances or medical prescriptions

T.Vindol. 3.591 (inv. 93.1350)

<014bis>

Vindolanda I^{ex}./IIⁱⁿ. Two fr. of a diptych written on only one side TL

Size: 45 × 80 mm

Reprod.: ed., pl. V

tinuously updating the Pack catalogue (1965² = P² or Pack²). Since December 2005, all notices MP³ of the *Catalogue des papyrus littéraires grecs et latins* from CEDOPAL have been accessible at this website: <http://promethee.philo.ulg.ac.be/cedopal/index.htm>. Notices about the medical literary papyri can be found in the subcategory “Médecine et chirurgie.” For papyrological abbreviations consult the *Checklist* by Oates/Bagnall/Clackson/O’Brien/Sosin/Wilfong/Worp (2001⁵), also available online (<http://scriptorium.lib.duke.edu/papyrus/texts/clist.html>).

- 2 See on the CEDOPAL website the page for the *Corpus papyrorum Latinarum* (<http://www2.ulg.ac.be/facphl/services/cedopal/pages/corpusPapyrorumLatinarum.htm>), which provides access to digitised copies of the CPL and of the first volume of Cavenaile’s doctoral dissertation (1948–1949); also available is the general bibliography *Papyri Latinae*, notices for the Latin papyri of Herculaneum, and Latin Jewish and Christian papyri, accompanied by bibliographies prepared by G. Nocchi Macedo.
- 3 Cavenaile (1956–1958); on the conception and creation of the CPL, see Marganne (2010).
- 4 We are not including *P. Mich.* 7.449 (inv. 4799d = MP³ 2995.2, Karanis, late second century A.D.), which appears to contain one or more culinary recipes, even though Adams (2003: 528) thought it might be medical: “the recipe, if it is such, could as well be medicinal as culinary,” see Dorandi (1994: 27), n° 1215, with plate.

T. Vindol. 3.591 (inv. 93.1350)⁵ is one of the famous “Vindolanda tablets,”⁶ hundreds of which have been excavated (and more than 800 catalogued) over the last thirty years from a Roman fort that was built toward the end of the first century A.D. two kilometres south of the line that would afterwards be chosen for the construction of the *limes* of Hadrian (today, Chesterholm in northern England). The tablet dates to the third period of the fort’s occupation, that is, sometime between the years 97 and 102/103 A.D. It consists of two fragments of a diptych, both measuring 4.5 cm in width and 8 cm in length. The fragments are incomplete at the upper and right-hand parts. Fragment (a) still possesses the left part of a column of six lines, while fragment (b) preserves the left part of a column of thirteen lines. The other side of each fragment is blank. The handwriting is that of an experienced scribe. The fragments contain two lists of well-known substances belonging to the pharmacopoeia of Greeks and Romans alike. On the fragment (b), we can read an abbreviation for the weight repeated five times (b, 2: ablative *p(ondo)*; 5; 6; 7; 8). With two exceptions only (b, 3: accusative *bitumen*; 4: accusative *glutem tauri[nam]*), all the names of the substances are in the genitive case. As editors A.K. Bowman and J.D. Thomas have noted, we could be looking here at either an inventory of medical supplies, or at a list of products used for medicinal purposes, or at two distinct lists of ingredients related to two different medical prescriptions. In fact, other tablets attest medical activity in Vindolanda. *T. Vindol.* 2.154 contains lists of “ill” (*aegri*) and “wounded people” (*uolnerati*), and soldiers “suffering from ophthalmia” (*lippientes*) (lines 22–24).⁷ The poor health of the prefect is mentioned in a private letter (*T. Vindol.* 2.344, I, 7–9: *prae|[fe]cto non potui queri quia ua|[let]udini detinebatur*; see also *T. Vindol.* 2.227, b, 2: *ualetudinem*), and perhaps a fever is mentioned in another letter (*T. Vindol.* 2.294, 6: *febric.*). A doctor named Marcus is mentioned in a report (*T. Vindol.* 2.156, line 2: *missi ad hospiti[u]m cum Marco medico*).⁸ A *ueterinarius* and a “pair of shears” (*forficem*) are mentioned in a private letter (*T. Vindol.* 2.310). Another veterinarian is mentioned in accounts (*T. Vindol.* 2.181, 8: *ab Alione ueterinario*), and even a *ualetudinarium* in another report (*T. Vindol.* 2.155, line 6). Most

5 *T. Vindol.* 3.591 was edited by Bowman/Thomas (2003: 44–46).

6 About these tablets see especially Thomas (1992), Bowman (1994³), and Bowman (1996). These tablets were published by Bowman/Thomas (1983 = *T. Vindol.* 1), Bowman/Thomas (1994 = *T. Vindol.* 2), and Bowman/Thomas (2003 = *T. Vindol.* 3). See also the Vindolanda Tablets Database (*T. Vindol.* 118–573), with images available online (<http://vindolanda.csad.ox.ac.uk/>).

7 Rémy/Faure (2010: 53–54).

8 Rémy/Faure (2010: 25, 116–117), n° 24.

of the substances mentioned in the two fragments of *T. Vindol.* 3.591 seem to have been used by Greek and Roman doctors in treating eye ailments and wounds. Moreover, other Vindolanda tablets, such as the above-mentioned report (*T. Vindol.* 2.154, 24: *lippientes*),⁹ allude to medical activity: one account mentions a “druggist/perfumer” (*T. Vindol.* 3.586, I, 7: *seplasiarius*),¹⁰ another mentions “pepper” (*T. Vindol.* 2.184, 4: *piper*), and one list may mention the word *collyrium* (“topical eye treatment”) (*T. Vindol.* 3.592, 9: *coll[yrum?*). It is therefore possible that the two fragments of *T. Vindol.* 3.591 both belong to a therapeutic context.

TABLE 1 *Fragments of T. Vindol. 3.591*

Latin text	Translation
Fr. a	Fr. a
1. <i>anesi</i> [	1. anise ...
2. <i>nucule</i> [	2. small nuts ...
3. <i>uuae</i> [	3. grapes ...
4. <i>siliginis</i> [	4. wheat ...
5. <i>fabae</i> [	5. bean ...
6. <i>aluminis</i> [	6. alum ...
Fr. b	Fr. b
1. []	1. ...
2. <i>cerae p(ondo)</i> . [	2. wax, by weight ...
3. <i>bitumen p(ondo)</i> . [	3. bitumen, by weight ...
4. <i>glutem tauri</i> [<i>nam</i>	4. bull's hoof glue ...
5. <i>picis p(ondo)</i> . [	5. pitch, by weight ...
6. <i>atramenti p(ondo)</i> [	6. blacking, by weight ...
7. <i>ancusae p(ondo)</i> [	7. orchanet, by weight ...
8. <i>senā pidis p(ondo)</i> [	8. mustard-seed, by weight ...
9. <i>aeruginis c</i> [	9. verdigris ...

9 Birley (1992).
10 Rémy/Faure (2010: 189–191), n° 189.

TABLE 1 (cont.)

Latin text	Translation
10. <i>lini mellari</i> [	10. linen soaked in honey...
11. <i>resinae</i> . [	11. resin...
12. <i>cummini</i> [	12. cumin...
13. <i>gallae</i> ... [	13. oak-gall...

Another Vindolanda tablet (*T. Vindol.* 3.592, inv. 93.1529, 2.1 × 9.2 cm, same period), the possible source of the word *collyrium* mentioned above, preserves a list of several substances and accessories that may have been used in a medical or pharmaceutical context. It contains the left part of a column of nine lines:

TABLE 2 T. Vindol. 3.592

Latin text	Translation
1. traces	1. ...
2. [[.]] 'm'el	2. honey
3. <i>beṭa</i> [	3. beet...
4. <i>ung</i> [	4. ointment (?)...
5. <i>oua</i> [	5. eggs...
6. <i>sab</i> ! [	6. sand (?)...
7. <i>pult</i> . [	7. pot...
8. <i>bubu</i> [	8. of beef...
9. <i>coll</i> [	9. <i>collyrium</i> (?)

4. *ung*[uentum? MHM; *ung*[uis? Bowman & Thomas.

6. *sab*! [Bowman & Thomas.

7. *pult*. [, from *pultarius*, rather than a form of *puls*, -tis (flour porridge) Bowman & Thomas.

8. *bubu*[, from *bubulus* Bowman & Thomas.

9. *coll*[yrium Bowman & Thomas.

In layout as well as in content, these Latin lists written on tablets are very similar to lists in Greek, such as are attested on a great number of papyri found in Egypt.¹¹ These lists, of which a complete inventory is lacking, may originally

¹¹ Marganne (2006).

have been druggists' inventories or list of substances to purchase, or even recipes in which the proportions of ingredients are missing. Here are three examples of Greek lists chosen from the *Papyrussammlung* of the *Österreichische Nationalbibliothek* in Vienna:¹²

The first (*MPER* NS 13.2 = *P. Vindob.* inv. G 13679^v = *CPR* 7.32) is a papyrus fragment (8 × 16 cm) containing a druggist's price list. The fragment comes from the Arsinoite nome,¹³ is dated to the second century A.D. and has two columns of text on the verso. On the first column, only a series of prices remains, but we can decipher some of the words of the second column, particularly "unguents" (3: μύρων), "ink" (6: μέλανος γραφι[χοῦ]), "powdered incense" (7: μάννης), "black pigment" (9: μελαντηρίας), and also "box of unguent" (10: μυροθήκης), "millstone" (11: μύλου), "mortar" (12: μάκτρας), etc.

The second example (*MPER* NS 13.15 = *P. Vindob.* inv. G 14049) is a papyrus (9.3 × 15.6 cm) dated to the seventh century of unknown provenance. This contains a list or perhaps a purchase order for various products whose names are written on the left, in a column, with the prices (3: νο(μίσματα)) on the right: "stimuli" (6: στήμιος for στίμεως), "black" or "ink" (8: μέλανος for μέλανος), "myrrh" (10: στακτή), "mastich" (12: μαστίχην), possibly "verdigris" (13: υἱός, read ἰός), *mouschatèn* (14: μουσχάτην, read μοσχάτιον), a diminutive form of μοσχάτον ("musk perfume"),¹⁴ "fruit of a male palm tree" (15: ψήν), and *rositarion* (16: ῥωσιτάριον, read ῥωσιτάριον), a diminutive for ῥοσάτον, Latin *rosatum* ("rose wine").¹⁵

The third example (*MPER* NS 13.5 = *P. Vindob.* inv. G 22095 = *MP*³ 2422.6) is a papyrus fragment (3 × 9.9 cm) dating from the third or fourth century, of unknown provenance. It contains either a list of pharmaceutical products or a recipe. In fact, the state of the papyrus, torn on the right side where the amounts of ingredients might have been written, makes the exact identification of the content difficult: it could be a list of pharmaceutical products or an ophthalmological prescription containing "saffron" (2: κρόκο[υ]), "pepper" (3: πιπε[.]), "incense" (4: λυβα[.], read λιβα[.]), and "copper" (?) (5: χαλχι[?]).

12 These papyri were edited by Harrauer/Sijpesteijn (1981: 3, 10, 40–42 and pl. 3, 4, 13–14). Digital images are available online at the *ÖNB* (*Österreichische Nationalbibliothek*) website, *Katalog der Papyrussammlung* (http://aleph.onb.ac.at/F?func=file&file_name=login&local_base=ONB08).

13 And not Hermopolis, as indicated in the *editio princeps*. On this question, see Mitthoff (2002: 244).

14 On this product and its name, see Fournet (2008: 159–162).

15 On the name borrowed from Latin of this aromatised or artificial wine, see Maravela-Solbakk (2010: 253–256).

Did Latin-speaking druggists and doctors imitate the Greeks while writing out and presenting their lists and prescriptions? The borrowings and influences could in fact manifest themselves as much in the language and in theories as in practices, including scribal practices. Unfortunately the number of Latin papyri that may contain medical prescriptions is too small for us to be able to answer this question.

Through Greek parallels nonetheless we can address the question of Latin loan words in Greek as well as the case of the suffix -ᾶτον, which transcribes the Latin *-atum*, in order to indicate products or preparations used in the pharmacopoeia (among other uses). In fact we find attested among Greek literary, paraliterary, and documentary papyri from Egypt dating from the fifth through to the seventh centuries nouns such as ῥωσιτάριον or ῥοσᾶτον (Latin *rosatum*,¹⁶ “rose wine”), μουσχοροσᾶτον (“musk and rose wine”),¹⁷ κονδῖτον (Latin *conditum*, “aromatic or peppered wine”),¹⁸ ἀψινθᾶτον (“wine with absinthe”),¹⁹ μυρσινᾶτον (“myrtle wine”),²⁰ μαστιχᾶτον (“mastich wine”),²¹ στυραχᾶτον (“styrax wine”), κιτρᾶτον (“citron wine”),²² ἰᾶτον (“violet wine”), κυδωνᾶτον (“quince wine”), ὕδροροσᾶτον (“rose wine mixed with water”),²³ καρυοφυλλᾶτον (“clove wine”),²⁴ and even φούσκα (Latin *posca*, “sour wine,” i.e., water mixed with vinegar).²⁵ Greek even uses terms of measurement borrowed from Latin,

16 Hofmann (1983: 371–372).

17 *MPER* NS 13.17 (*P. Vindob.* inv. G 23939, seventh century, provenance unknown, 6 × 4.3 cm, →): cross, followed by μουσχοροσᾶ|τον on a label.

18 *MPER* NS 13.18 (*P. Louvre* inv. E 6846, App. 386, seventh century, provenance unknown, 7 × 4.5 cm, ↓): cross followed by κονδῖτων | ποιοῦν (read κονδῖτον πυροῦν?) on a label; *P. Alex.* 36 (inv. 291 = GMP I 15 = MP³ 2389.1), seventh century, provenance unknown, list of aromatised wines with medicinal properties; *P. Ant.* 2.64 (MP³ 2390), sixth century, Antinoe, medical prescriptions mentioning conditum (recto, 4), violet wine (verso, 14), and mastich wine (verso, 19); see Hofmann (1983: 371–372).

19 Chantraine (1992²: 152), s.u. ἄψινθος, cites the substantive ἀψινθᾶτον among its derivations: “with the suffix -ᾶτον borrowed from Latin.” See Hofmann (1983: 45).

20 Hofmann (1983: 282).

21 *P. Ant.* 2.64 (= MP³ 2390, sixth century, Antinoe), verso, 19: μαστιχᾶτο[υ; see Hofmann (1983: 263–264).

22 Hofmann (1983: 176–177).

23 On aromatised wines see, in addition to Maravela-Solbakk (2010), André (1981²: 166–168), Kramer (1997), Fournet/Magdelaine (2001), Fournet (2003).

24 *P. Alex.* 36 (inv. 291 = GMP I 15 = MP³ 2389.1, already cited above), 6.

25 *P. Oxy.* 11.1384 (MP³ 2410, Oxyrhynchus, fifth/sixth century), 1: φούσκα; see Hofmann (1983: 480).

such as οὐγγία/οὐγκία (Latin *uncia*, “ounce”),²⁶ an ancient borrowing made by Greeks in Sicily,²⁷ and ξέστης (Latin *sextarius*, “pint”).²⁸

We now cross the Channel, continuing our route until we reach Valkenburg (ancient *Cingula*) in the Netherlands, provenance of a wooden tablet dated to 40–42 A.D. Written in Latin in a personal cursive hand, it contains a letter addressed from Toul, capital of the Leuci, to *Albano medico* (CEL 14).²⁹ At Vindonissa (actually Windisch) in the Swiss canton of Aargau, where an important Roman camp was located in 15–16 A.D.,³⁰ around 200 wax tablets have been found, bearing Latin documentary texts. Among those used for correspondence, two were addressed to the doctors Gaius (*Gaio medico*) and Priscus (*Prisco medico*).³¹ Unfortunately, we are not able to deduce anything further concerning the question that occupies us here.

Let us now cross the Mediterranean in order to visit the land of the Nile, whose exceptional climate has made possible the preservation of hundreds of thousands of papyri, wooden tablets, ostraca, and pieces of parchment. Egypt became a Roman province in 30 B.C., but Latin never really replaced Greek, which remained the language of administration until the end of the seventh century. Furthermore, in 395 A.D., when Honorius and Arcadius divided the Roman Empire, Egypt became part of the Eastern Roman Empire until the Arab conquest of 641. As a consequence, Latin papyri (about 800) are much less numerous than Greek papyri, which number hundreds of thousands. In the current state of documentation, no literary or paraliterary papyrus in Latin on a medical subject has yet been found or identified, although we have two Latin papyri containing culinary recipes: *P. Heid.* inv. L 1 (MP³ 2995.1, first century, unknown provenance) and *P. Mich.* 7.449 (inv. 4799d = MP³ 2995.2, Karanis, end of second century A.D.: see above, n. 4). The dossier of Latin

26 For example, *P. Aberd.* 10 (MP³ 2350, Fayyum, second century), 6: Γο; *P. Ant.* 3.127 (MP³ 2362.4, Antinoë, seventh century), fr. 5, 3; *P. NYU* inv. 468^v (MP³ 2467.5, last third of the second century), col. I, 11.

27 Chantraine (1992²: 835), s.u. οὐγγία, and Hofmann (1983: 301–302).

28 Chantraine (1992²: 765), s.u. ξέστης, and Hofmann (1983: 291–292); see for example, *P. Ant.* 3.127 (MP³ 2362.4, Antinoë, seventh century), verso, 15 (already cited above).

29 Cugusi (1992: I 95 and II 30–31); Rémy/Faure (2010: 24, 169), n° 66.

30 Faure (2006a) and Faure (2006b).

31 Rémy/Faure (1996: 140–141) and Rémy/Faure (2010: 24, 153–155), n° 53–54; Speidel (1996: 72–73, 172–173, 234), n° 37: *Gaio me|dico* (= CEL 57); n° 69: *Prisco m|edico* (= CEL 56).

documentary papyri has somewhat more to show, thanks to Vindolanda and Vindonissa, which have yielded texts that belong almost exclusively to a military context.³² Thus in the Latin letter *P. Mich.* 8.468 from Karanis, dating from the early second century, one Claudius Terentianus, soldier of the *classis Augusta Alexandrina* who became a legionnaire, writes to Claudius Tiberianus, his father (?), telling him he was bedridden (col. I, 13: *me iacentem*; 21).

From the Mons Claudianus, where a granite quarry³³ was operated under guard of the Roman army from the time of Claudius (41–54), some 9,000 ostraca remain, most in Greek. Among these were found a few lists of “workers” and of “sick men” (ἄρρωστοι/ἀσθενεῖντες), who did not work and were at times designated in Greek by the word αἰγροί or by the beginning of this word (αἰγρ- or αἰγρο-), a loan word from Latin (*aegri*).³⁴ Such is the case for *O. Claud.* 4.697 (inv. 1121, line 10: αἰγροί), 698 [inv. 1132, line 15: αἰγρ(οί)] and 699 (inv. 7284, line 14: αἰγροί), dated to the reign of Trajan (98–117),³⁵ and *O. Claud.* 2.191 (inv. 5561, line 1: αἰγροί) and 192 (inv. 5460, line 1: [αἰ]γροί), dating from between 138 and circa 154 A.D.³⁶ Thus we have a case of the intrusion of a Latin administrative term in Greek documents probably written by a Greek-speaking official who knew only the Greek alphabet. This example of transcription into Greek of Latin words is far from rare in Roman and Byzantine Egypt: we know that the learning of oral language must have preceded the study of the written language.³⁷

32 Wilmanns (1995: 21, 39, 97–101, 231–237); Fournet (2003). We have not here retained the letters *P. Mich.* 7.455^v (*CPL* 133 = *CEL* 204), first half of the third century, and *O. Abu Sha'ar* inv. BAS93–15–21 (Bagnall/Sheridan [1994: 117 and pl. 30]), second century because their content is not well-explained.

33 Located in the mountains of the Egyptian Eastern desert about midway between the Red Sea and Qenah.

34 Or perhaps *aegroti* according to Cuvigny (1992: 79 and n. 13). This is not Langslow's opinion (1999: 206, n. 64): “*lippientes* and *aegri* may be proper also to official army language under the Empire. . . . Lists of men unfit for service through illness are headed by the word *aegri*, not *aegroti*, both at Vindolanda . . . and frequently at Bu Njem.”; see also Langslow (2000: 38, n. 106): “Might the use of αἰγροί by Greek-speakers be relevant to the formation of Latin *aegrotare* (apparently *aeger* + Gk -ώττειν)?”

35 Bülow-Jacobsen (2009: 50–54 and 303–304 for the images).

36 Cuvigny (1997: 21) and the commentary by Adams (2003: 458).

37 Cavenaile (1987: 109).

On the other hand we find the word *tetates*³⁸ on Latin army registers, that is, “those who have θ marked beside their name, the dead,”³⁹ sometimes found as *te*, *θetati*,⁴⁰ or simply θ,⁴¹ standing for θάνατος or θανών/τεθνηκώς.⁴²

Comparatively, at Bu Njem (ancient Golas), in Tripolitania, at the site of a Roman camp established on the *limes* in the third century (the fortress was abandoned in 263 at the latest), Latin ostraca mention sick people under the title of *aegri*.⁴³

To this evidence we may add Latin words related to health and sickness attested in about twenty Graeco-Latin glossaries preserved on papyri, dating from the first through the seventh century (with highest frequency in the third and fourth),⁴⁴ such as *alumen* (στυπτηρία, “alum”), *bitumen* (ἄσφαλτον, “asphalt”), *buxus* (πύξος, “boxwood”), *caput* (κεφαλή, “head”), *caro* (σάρξ, “flesh”), *corpus* (σῶμα, “body”), *creta* (γῆ λευκή, “chalk”), *facies* (ὄψις, “face”), *galla* (κηκίς, “oak gall”), *humerus* (ῥῆμος, “shoulder”), *laser* (ὀπός, “laser,” i.e. juice from the laserwort), *latus* (πλευρά, “side”), *linteamen* (ῥθόνιον, “linen, bandage”), *myrrha* (σμύρνα, “myrrh”), *piper* (πέπερι, “pepper”), *pix* (ρήτινη, “pitch”), *pumex*

38 *P. Fay.* 105, III, 26 (*ChLA* 3.208 = *CPL* 124).

39 Isid. *Orig.* 1.24.1: *De notis militaribus. In breuiculis quoque, quibus militum nomina continebantur, propria nota erat apud ueteres, qua inspiceretur quanti ex militibus superessent quantique in bello cecidissent. T Tau nota in capite uersiculi posita superstitem designabat; Θ Theta uero ad uniuscuiusque defuncti nomen apponebatur. Vnde et habet per medium telum, id est mortis signum.* (“Military signs. The ancients also used a special sign in the rosters that contained the names of soldiers; by this sign it could be seen how many of the soldiers were still alive and how many had fallen in battle. The sign T (tau) placed at the beginning of the line indicated a survivor, while Θ (theta) was placed by the name of each of the slain. Therefore, this letter has a spear through the middle, which is the sign of death”) (trans. by Barney/Lewis/Beach/Berghof/Hall [2007²: 52]).

40 *Olim P. Hunt*, col. II, II (Brit. Libr. inv. 2851 = *ChLA* 3.219 = *CPL* 112 = n° 63 by Fink [1971]).

41 *P. Vindob.* inv. L 2, recto, col. II, 19 et verso, col. II, 14 (*ChLA* 43.1242 = *CPL* 110 = Seider I 19 = n° 34 by Fink [1971]).

42 Watson (1952); Fink (1958: 113); Thomas (1977); Kramer (2007: 97, 100).

43 Marichal (1979), Marichal (1992). The two publications present the observations of M.D. Grmek on the health of this Roman garrison in the pre-desertic zone such as can be deduced from daily reports.

44 See the notices *MP*³ 2134.1 at 2134.7 and 3003 at 3008.2, and the manual of Latin-Greek-Coptic conversation *MP*³ 3009, from the sixth century, provenance unknown. The provenance of half of the glossaries is not known. The others were found at Oxyrhynchus (6), Hermopolis (2), and perhaps in the Fayyum (2); on these questions see especially Kramer (1983), Kramer (2001), Kramer (2004).

(κισήριον, “pumice stone”), *sulphur* (θεῖον, “sulphur”), *tonsillae* (παρίσθμια, “tonsils”), *uiscus* (ἰξός, “mistletoe”), and *unguo* (ἀλείφω, “I anoint”).

At the conclusion of this inquiry, we may observe that in contrast with Greek medical books, Latin medical works have left little trace among our papyrological sources. Nonetheless, while there is no doubt that a system of medicine imported from Greece in the third century B.C. was for a long time contained in books written in Greek,⁴⁵ Latin medical books must have existed in Rome (in what form?; for what readership?)⁴⁶ from the time of Cato the Elder (234–149 B.C.), who compiled a formulary (*Commentarius*) of traditional Roman recipes so his family could take care of itself without having to use Greek medicine.⁴⁷ In the first century A.D., Celsus, a contemporary of Tiberius (14–37), devoted volumes 6–13 of his encyclopaedia entitled *Artes* (*Arts*) to medical topics. Scribonius Largus dedicated to Caius Julius Callistus, a freedman of the emperor Claudius (41–54), a collection of remedies, which was known under the name of *Compositiones* (*Book of Recipes*), while Pliny the Elder (third quarter of the first century A.D.) devoted several books of his grand encyclopedia to vegetable (Books 20–27), animal (28–32), and mineral (33–34) remedies. To this day, no papyrus from these authors has been found in Egypt, although we have papyri containing works of Cicero (10), Cornelius Gallus (1), Juvenal (1), Livy (3), Lucan (1), Sallust (7), Seneca (1), Terence (2), and above all Virgil (27), the favourite author of Greeks (or Greek-speaking) learning Latin, particularly among lawyers. In its current state, the papyrological documentation appears to justify the remark from Pliny the Elder, in his *Natural History*:⁴⁸

45 von Staden (1996), von Staden (2000); Marganne (2004: 129–130).

46 On medicine at Rome see especially Gourevitch (1984: 289–321), Gourevitch (1995), André (1987), Jackson (2000²), Sabbah/Corsetti/Fischer (1987), Fischer (2000); some *addenda* from the last-named reference are available on the website of BIUSanté (<http://www.biusante.parisdescartes.fr/medicina/docu.htm>).

47 Plin. *Nat.* 29.15: *profiteturque esse commentarium sibi, quo medeatur filio, seruis, familiaribus, quem nos per genera usus sui digerimus* (“and he claims to have a formulary by the aid of which he treated his son, his slaves and his friends, [a formulary] that we rearrange according to the categories of its use”; trans. is mine); Plu. *Cat. Ma.* 23.5.350 c–d: αὐτῷ δὲ γεγραμμένον ὑπόμνημα εἶναι καὶ πρὸς τοῦτο θεραπεύειν καὶ διατῆν τοὺς νοσοῦντας οἴκοι, that is, “(he said) also that he had written a formulary for providing care, and a regime to be followed by the sick people in his house” (trans. is mine).

48 Ernout (1962: 74, § 17, n. 1) mentions Julius Bassus and Sextius Niger, who wrote in Greek, according to Dsc. *Prooem.* 2.

Solam hanc artium Graecarum nondum exercet Romana grauitas; in tanto fructu paucissimi Quiritium attigere, et ipsi statim ad Graecos transfugae, immo uero auctoritas aliter quam Graece eam tractantibus etiam apud imperitos expertesque linguae non est. (Plin. *Nat.* 29.17)

Medicine alone of the Greek arts we serious Romans have not yet practised; in spite of its great profits only a very few of our citizens have touched upon it, and even these were at once deserters to the Greeks; nay, if medical treatises are written in a language other than Greek they have no prestige even among unlearned men ignorant of Greek (trans. by Jones [1963: 192–193]).

Apart from the Vindolanda tablet *T. Vindol.* 3.591, which may have contained medical prescriptions, and the Graeco-Latin lexicons, all Latin papyri that contain words relating to medicine are documentary, whether they contain reports, private letters, accounts, or lists of soldiers, workers, products, or various other articles.⁴⁹ As regards to provenance, most of these documents were found in a military context, at Vindolanda (Chesterholm), Cingula (Valkenburg), Vindonissa (Windisch), Golas (Bu Njem), or at the Mons Claudianus (near Qenah, see n. 33 above). As concerns scribal practices and the climatic conditions in the area of the various finds, tablets were found at Vindolanda, Cingula, and Vindonissa, and ostraca at Bu Njem and Mons Claudianus. When they contain reports, these fragments of pottery or limestone probably represent first drafts of official lists that were recopied onto papyrus before being sent to higher authorities in order to be archived. Naturally, all papyrus documents have an Egyptian provenance. As for the content of these documents, excepting pharmaceutical products, the words relating to health or sickness are generally not very specialised, rarely going beyond the level of the basic vocabulary. With the exception of the ancient borrowing of the word *uncia* (“ounce”), we find no influence of Latin on Greek for foodstuffs and measurement units before the Byzantine period (fifth to seventh centuries), doubtlessly for commercial reasons. In fact, we can also find most of these names in the *Edict of Diocletian* (301).⁵⁰ A comparison with Greek papyri definitely shows that Greek remained the language of medicine in Graeco-Roman and Byzantine Egypt.

49 On the progressive extension of the MP³ database of CEDOPAL to some documentary categories of papyri, see Marganne (2012).

50 See for example Corbier (1985).

2 Iatromagical Papyri (Magali de Haro Sanchez)

Iatromagical papyri, which contain words from both medical and magical vocabularies, represent a specific category within the magical texts.⁵¹ They contain charms—prescriptions or amulets—intended to protect or cure a patient from one or more sicknesses. The catalogue of iatromagical papyri presently contains eighty-seven documents dating from the first to the seventh century A.D. These can be divided into two main categories: formularies (27) and amulets (59), plus one letter. These texts are written on different supports: papyrus (78), parchment (3), *ostrakon* (1), wooden tablet (1), and metal *lamellae* (gold or silver) (4). Iatromagical papyri pertain mostly to Egyptian, Greek, Roman, or Judeo-Christian⁵² cultural contexts. They are written in Greek (86 texts, of which three also contain Coptic writing) and Latin (one single text).

The *Corpus papyrorum Latinarum* of R. Cavenaile contained only one magical papyrus in Latin: *P. Heid.* inv. lat. 5 (MP³ 6101).⁵³ At present, this remains the only papyrus of this type to have been found in Egypt.⁵⁴ Here is the entry from the above-named catalogue:

51 These texts, catalogued by CEDOPAL since 2004, are the object of my doctoral dissertation: *Recherches sur les papyrus iatromagiques grecs et latins d'Égypte. Contribution de la papyrologie à la typologie des écrits de magie dans l'Antiquité*.

52 The catalogue, regularly updated, is accessible online at the website of the CEDOPAL at the University of Liège (<http://promethee.philo.ulg.ac.be/cedopal/Bibliographies/Iatromagiques.htm>).

53 Cavenaile (1958: 409).

54 We must also point out here a fragment from a *Pater Noster*, written on a papyrus preserved in Vienna (*P. Vindob.* L 91 = MP³ 9902, Fayyum or Hermoupolites [?], sixth century). It was classified as school exercises by E.A. Lowe and J. Van Haelst, and then by Martin (1983). Proposing to see in the Greek transcription of the Latin *Pater* the intention of making the text accessible to a Greek-speaking believer, perhaps in the context of a monastery, it was considered to be a Christian amulet by R. Seider, but according to us, this view is mistaken. In fact, the categorisation “amulet” is sometimes offered too quickly for papyri that do not have the requisite characteristics. An amulet consists of a single spell written on a support that is relatively small, because it is designed to be folded or rolled up and tied around a patient's neck with a string, sometimes being inserted into a small container for this purpose and then worn by the patient. Normally, the beneficiary, the thing desired, and the divinity are explicitly mentioned. Thus the content is personalised, because these three elements—to which we may add an illustration—vary from one individual to another. Also, one should not confuse amulets with tablets bearing curses. The objective and the procedure that are at the origin of these two types of objects are radically different. In order to distinguish them ancient Greek used distinct terms: on

MP³ 6101

Christian healing amulet in Latin

Suppl.Mag. 1.36 (P. Heid. inv. lat. 5)

<208, dep.>

ed. pr.: R. Daniel—F. Maltomini, ZPE 74 (1988) 259–265

Fustat (?) V/VI

Size: 102 × 191

Cit.: Vetus Testamentum, *Psalmi* 15.10; Vetus Testamentum, *Psalmi* 20.2–7

Bibl.: K. Preisendanz, *Forschungen und Fortschritte* 16 (1940) 409; Id., *Deutsche Literaturzeitung* 61 (1940) 739; R. Seider, *Heidelberger Jahrbücher* 8 (1964) 164; R. Cavenaile, CPL 316; E.A. Lowe, CLA 8. 1222; Pack² p. 2; Van Haelst 1213; J. Kramer, ZPE 74 (1988) 253–265; R. Cavenaile, *Serta Leodiensia Secunda* (1992) 61–62.⁵⁵

Normalised transcription of the text, according to the edition of R.W. Daniel and F. Maltomini (Suppl.Mag.):

1. † In nomine patris et filii et spir[itus sa]ncti l.....amen. "In principio
2. erat deus et deus ęřat l...n" się[] ut
3. et b utořin
4. m saeęulo.tt. domine deus [6] [[e ęaęli et ter[rae co]nditor et [c]onser-
5. ę<a>tor peccatorum, postulamus ęur[atio]nis interpellantes per Iesum Chri[s-]
6. tum, filium tuum, deum et dominum nos[trum, i]n cuius nomine et uirtute scribo ut
7. "Domine, in uirtute tua laetabitur rex et super salutare tuum exsultabit
8. uehementer. Quoniam praeuenisti eum in benedictione dulcedinis, posuisti in
9. capit<e> eius coronam de lapide pretioso. Vitam petit et dedisti {lo}
10. longitudinem dierum in aeternum et in saeculum saeculi. Magna est glo-
11. ria eius in salute tua. Laetificabis eum [in] gaudio cum uultu tuo. Delecta-
12. tiones in dextera tua usque in f[inem. Quoni]am praeuenisti eum in benedi-
13. ctione dulcedinis. Et uoluntate l[abiorum d]edisti ei." Ego iscripsi. Et tu, me-

one hand there was φυλακτήριον (protective charm) and on the other hand κατάδεσμος (*defixio*). Φυλακτήριον designates a protective charm that takes on a physical shape, the form of an amulet (περίαμμα or περίαπτov), which, as its name indicates, is intended to be worn or carried (περίάπτω) upon one's person. κατάδεσμος (δ) or κατάδεσμα, ατος (τό) (v. καταδέω, καταδεσμεύω) is different from φυλακτήριον because it designates an aggressive charm, a curse, which in order to be set in motion, must be deposited (κατατίθημι) in a grave (PGM IV 333–336), a well, or a spring of water, or thrown into the sea (P. Lond. I.121, 450–458). For more information about cursing charms, see Audollent (1904), Faraoane (1991), Gager (1992), Heintz (1998), Kropp (2008), Martin (2010) and Tremel (2004).

55 See above, note 1.

14. dicus caelestis, in cuius nomine e[t uirtute] scribo, per angelum Michaelum
15. {u} coniuro et per angelum Gabrielum e[t] per [ang]elum Rafaelum coniuro et per
16. angelum Azazelum et per angelum Urie[lum] coniuro et per angelum Iere-
17. mielum et per angelum Fotuelum et per [u]iginti quatuor seniores qui
18. astant ante dominum et quattuorque animalia qui regunt thronum domi-
19. ni et dicunt: "Sanctus sanctus sanctus dominus deus Sabaoth. Beneditus qui
20. uenit in nomine rex Isra[e]l. Hosana in excelsis deo <et in terra pax>
21. hominibus bo-
22. nae uoluntatis".

In the name of the Father and the Son and the Holy Spirit [] amen. "In the beginning there was God, and God was Light (?) [] a century [] Lord God, [] creator of the heavens and the earth and saviour of sinners, request healing by calling upon Jesus Christ, your son, our God and our Lord, in whose name and strength I write for this purpose: "Lord, in your strength the king will rejoice and greatly exult in the salvation that comes from you. For you have come before him with a promise of happiness, you have placed upon his head a crown of precious stones. He asked for life and you have given him long life, for eternity and for ever and ever. Great is his glory in your salvation. You will fill him with joy by your regard. Pleasures at your right hand until the end, for you have come before him with a promise of happiness. And you shall give him what his lips have desired." So I have written. And you, heavenly doctor, in whose name and strength I have written, by the angel Michael, I conjure you, and by the angel Gabriel and by the angel Raphael, I conjure you, and by the angel Azazel and by the angel Uriel, I conjure you and by the angel Jeremiel and by the angel Fotuel and by the twenty-four elders who stand before the Lord and the four animals who watch over the throne of the Lord, saying, "Holy, holy, holy, the Lord God Sabaoth. Blessed is he who comes in the name of the Lord God of Israel. Hosanna to God in the highest heavens, and peace on earth to men of good will" (trans. is mine).

The first mention of this text goes back to its acquisition by the library of the University of Heidelberg, carried out by K. Preisendanz,⁵⁶ noted in two

⁵⁶ K. Preisendanz (1883–1968) was the director of the Heidelberg library from 1935 to 1945, and is known for having edited the *Papyri Graecae magicae* 1928–1931 (among other things). Preisendanz (1928–1931).

articles.⁵⁷ The papyrus was entered officially as part of the Heidelberg collection on September 10, 1937. The final notice concerning the papyrus was the mention, by E. Lowe, that it had been lost and possibly destroyed in 1945.

According to K. Preisendanz, the papyrus came from Fustat and measured 10.2 cm wide by 19.1 cm long. It contained twenty-one lines in capital letters and was dated to the fifth or sixth century. The *dicolon* was written at lines eight and nineteen, and the sign of the double bar (/ /), at the end of line five. There may have been *charakteres* at lines two and three. In fact, in its typographic transcription, K. Preisendanz left at this point a large blank space, without mentioning lacunae or traces, perhaps intending to note the *charakteres* later.

Although a transcription of the text written on the papyrus was preserved, the disappearance of the actual papyrus represents a loss of important information concerning material aspects, such as the instances of folding or other traces of use, the writing, which can no longer be examined by experts, and of course about the text itself, which can no longer be verified or considered in terms of possible emendations.

The text of the papyrus seems to be an iatromagical amulet. The mention of a “heavenly doctor” (13–14: *medicus caelestis*), a reference to Jesus Christ, and the possible occurrence of the word “cures” (5: *cu[ratio]nis*) seem to point in that direction. The structure of the formula is similar to that of other iatromagical amulets. It opens with an introductory formula which establishes the magical context: entering into contact with the divine. At lines 1 and 3 we find the sign of the cross and a recollection or a very free quotation of the first part of the Gospel of John. In a non-Christian amulet we would have found in the first lines *uoces magicae*,⁵⁸ *charakteres*⁵⁹ and symbols. Next comes the reason behind the formula: the beneficiary is identified, although it is not precise in this case (5: “we request” *postulamus*, 6: “I write” *scribo*), the purpose for the amulet (a cure) is mentioned (5: *cu[ratio]nis*), the divinity is invoked by name (5–6 and 6–13: interwoven citations from Psalms 15 and 20, as well as a reference to the Book of Revelation, verses 4–8), and the mode of therapeutic

57 Preisendanz (1940a), Preisendanz (1940b).

58 These are symbols that appear several times in magical papyri, and their interpretation remains problematic.

59 This term refers to litanies and calligrams composed from the vowels $\alpha\epsilon\eta\iota\upsilon\omega$, and also from “barbarous names” made up of consonants and vowels that are put together to make incomprehensible words, which might have been regarded as having a foreign origin, such as Egyptian or Hebrew.

action is specified (13–19: writing and conjuration by angels). In lines 19–22, the closing formula contains a *Sanctus* and a *Benedictus*.

Among Greek amulets found in Egypt, we do not find any quotation of Psalms 15 and 20. On the other hand, Psalm 90 has often been used.⁶⁰ The final *Sanctus*, which serves as a closing for this formula, is attested in other amulets, mostly iatromagical in Greek: *P. Köln* 6.171 (fourth century), *P. Cair.* 10263 (4th/5th), *P. Prag.* 1.6 (MP³ 6048, 5th), *P. Flor.* inv. 365 (MP³ 6044, 5th/6th), *P. Heid.* G 1101 (MP³ 6054, 5th/6th), and *P. Princ.* 2.107 (MP³ 6050, 5th/6th). According to Th. De Bruyn,⁶¹ the *Sanctus* is attested in the liturgy (more precisely, in the anaphora) in Egypt from the middle of the fourth century and could have been introduced in the preceding century. The *Sanctus* prayers of the anaphora used in Egypt correspond to the text of Isaiah 6.3 “Holy, holy, holy, Lord God of Sabaôth, heaven and earth are full of thy Glory” (trans. is mine), but these anaphora lack the *Hosanna* and the *Benedictus* derived from Matthew 21.9, prayers that are nonetheless attested in our amulet.

The language of the text is in a non-standard Latin, a “vulgar” Latin. This is seen through many linguistic forms, including some that seem to suggest that the text might have been copied out by someone whose first language was not Latin.⁶² Based on that hypothesis, other things can be surmised about the origin of the writer which was connected to the military context of the Babylon of Egypt. In fact this papyrus stems from Fustat and is part of a group of documents which also contained the Greek papyrus Suppl.Mag. 1.32 (*P. Heid.* inv. G 1101 = MP³ 6054, a Christian amulet against migraines and the rheum of the eyes, fifth/sixth century). Fustat, also called Babylon, corresponds to a quarter of Old Cairo⁶³ where one can still see traces of Roman fortifications from the third century A.D. According to Strabo,⁶⁴ a legion was stationed there, but nothing remains of the camp he described. It is nonetheless interesting to be able to make a connection between a military camp and our papyrus. In fact, papyrology continually provides us with elements that show the important role played by the army in the introduction of Latin to Egypt.⁶⁵

60 On the other hand we find a use of Psalm 20 for therapeutic purposes in a Christian Arab manuscript that probably dates from the Mameluke period (thirteenth–sixteenth century). For a study of the use of Psalm 90 see Chapa (2011).

61 De Bruyn (2006).

62 Kramer (1988).

63 Sheenan (1996); Loukianoff (1950–1951); Butler (1978²).

64 Str. *Geo.* 17.30.

65 See for example Cavenaile (1958), Adams (1993), Adams (2003).

As has already been emphasised, it is the only Latin amulet from Egypt to have been identified with certainty.⁶⁶ Still, many more amulets have been found in that country than in the archaeological sites of the rest of the Roman world. The land of the Nile thus appears to occupy a special place as concerns the preservation of amulets, owing to the favourable climatic conditions found there. Among the sources found outside Egypt, we have found Latin and bilingual Graeco-Roman amulets, mostly preserved on metallic supports, four of which had iatromagical purposes:⁶⁷

1. Latin silver amulet containing an invocation of the centaurea to protect Justina, daughter of Sarra (Museum of Saint Germain-en-Laye, inv. n° 4609, Limonum (Poitiers), fourth century, 13.5 × 3.8 cm);⁶⁸
2. Gold amulet for the relief of ailments of the eyes (Picenum, Ripe San Ginesio, second century, 3.4 × 4.7 cm, *dep.*);⁶⁹
3. Bilingual gold amulet to obtain health and victory for Tiberius Claudius Similis (Billingford, Norfolk, not dated, 3 × 4.15 cm);⁷⁰

66 The other is a *Pater Noster* which could also be a school exercise. The confusion of these two for each other is particularly frequent.

67 It is not a question here of “Orphic” *lamellae*. For, if they are indeed amulets, they have a funerary or an initiatory purpose. Their structure and content are different from other amulets intended for use in ordinary life.

68 Kotansky (1994: n° 8); *Corpus inscriptionum Latinarum* (CIL) 13, pt. 3/2, n° 10026,86. Written in Latin, this contains a transliteration in the Latin alphabet of three Greek words: *gontaurion* for κενταύρειον “centaury plant” (1), *analabis* for ἀναλάβης “you should pick” (1), and *catalases* for καταλήψης “you will lay hold” (2) (Kotansky’s translation).

69 Kotansky (1994: n° 31). Written in Latin, this contains a mention of *Ad oculo(rum) dolorem aut ang(orem)* (“For pain or distress of the eyes”). Further, the “barbarian names” may reflect a Hebrew origin, according to the editor, R. Kotansky.

70 Tomlin (2004). As R. Tomlin, the amulet’s editor, emphasises, this theme is not attested among the Greek amulets discovered in Egypt, which did not use protection charms (δαθε σαλυθεμ for *date salutem* [“bring health”]) in order to obtain victory (ετ νικθωριαμ for *et uictoriam* [“and victory”]). In this case we thus have to do with a typically Roman element. The text of this lamella begins in Latin, goes on in Latin transcribed in Greek letters, and finishes in Greek. The level of linguistic facility is very high (featuring, for example, conservation of the desinence of the accusative, that is in this case, the final -m, in Latin). Either the writer of the amulet was only a copyist—he has mastered the two cursive scripts, but is content simply to copy the text carefully—or else he is the author, and shows very good knowledge of both languages.

4. Bilingual amulet against elephantiasis (Kotansky) or against a swelling or lump (D. Jordan) for Romulus (Budapest, Magyar Nemzeti Múzeum, inv. 9.1939.4, Tricciana [Ságvár, Hungary], fourth century, 4.7 × 6.5 cm).⁷¹

In all these cases, we have to do with non-Christian amulets. To my knowledge, so far no ancient Latin amulet of Judeo-Christian content has been found outside Egypt.⁷²

The absence of parallels makes the text of Latin papyrus an interesting and intriguing case. The quotation from the book of Psalms, for which we have found no other magical usage, in Greek or Latin, in Egypt or elsewhere, is connected to an African tradition of the psalter. But this tradition is almost lost, to the extent that it only survives in quotations from authors such as St. Augustine or in psalters that have undergone the influence of later traditions. The choice of Latin for the text of the amulet is surprising because it is the only Latin amulet discovered so far in Egypt. Otherwise, examples of iatromagical amulets found at other sites in the Roman world are few in number. The theme and structure of this amulet are comparable to those of other Greek iatromagical amulets, but no exact parallel has been found. For this reason it is regrettable that the papyrus disappeared, because it was truly an *unicum*.

We know that a Roman camp was located at Fustat. Therefore, the production of the Latin amulet must be situated in the context of that camp, which was occupied by Roman soldiers. Coming from many countries and belonging to different cultures, they would not have failed to bring with them their own practices, including those concerned with maintaining or regaining health.

Bibliography

1 *Medical Texts*

Adams, J.N. (2003), *Bilingualism and the Latin Language*, Cambridge/New York.

——— /Mayer, R.G. (eds.) (1999), *Aspects of the Language of Latin Poetry*, Oxford/New York.

Andorlini, I. (ed.) (2001), *Greek Medical Papyri*, 1, Florence.

⁷¹ Kotansky (1994: n° 18). The scribe used Greek for barbarian names, for the *uoces magicae*, and the identification of the disease (24 ἐλεφαντίασις[ις] ["elephantiasis"]), and Latin for the identification of the beneficiary (using his mother's name: *Romulus mater Bona*), repeated several times.

⁷² For examples of Christian and Jewish Greek amulets found somewhere other than Egypt, see Kotansky (1994).

- André, J. (1981²), *L'alimentation et la cuisine à Rome*, Paris.
- (1987), *Être médecin à Rome*, Paris.
- Bagnall, R.S./Sheridan, J.A. (1994), "Greek and Latin Documents from 'Abu Sha'ar, 1992–1993," *Bulletin of the American Society of Papyrologists* 31, 109–120 and pl. 22–33.
- Barney, S.A./Lewis, W.J./Beach, J.A./Berghof, O./Hall, M. (2007²), *The Etymologies of Isidore of Seville*, Cambridge.
- Bingen, J. (ed.) (1992), *Mons Claudianus. Ostraca Graeca et Latina*, 1. *O.Claud. 1 to 190*, IFAO. Documents de fouilles 29, Le Caire.
- (ed.) (1997), *Mons Claudianus. Ostraca Graeca et Latina*, 2. *O.Claud. 191 to 416*, IFAO. Documents de fouilles 32, Le Caire.
- Birley, A.R. (1992), "A case of Eye Disease (*lippitudo*) on the Roman Frontier in Britain", *Documenta Ophthalmologica* 81.1, 111–119.
- Boud'hors, A./Louis, C. (eds.) (2008), *Études coptes 10* (Douzième journée d'études, Lyon, 19–21 mai 2005), Paris.
- Bowman, A.K. (1994³), *Life and Letters on the Roman Frontier: Vindolanda and Its People*, London.
- (1996), "The Roman Imperial Army: Letters and Literacy on the Northern Frontier," in: Bowman/Woolf (eds.), 109–125.
- Bowman, A.K./Thomas, J.D. (1983), *Vindolanda: The Latin Writing-Tablets*, London.
- /Thomas, J.D. (1994), *The Vindolanda Writing-Tablets: Tabulae Vindolandenses*, 2, London.
- /Thomas, J.D. (2003), *The Vindolanda Writing-Tablets. Tabulae Vindolandenses*, 3, London.
- /Woolf, G. (1996), *Literacy and Power in the Ancient World*, Cambridge.
- Bülrow-Jacobsen, A. (2009), *Mons Claudianus. Ostraca Graeca et Latina*, 4, IFAO. Documents de fouilles 47, Le Caire.
- Capasso, M. (ed.) (2010), *Hermae. Scholars and Scholarship in Papyrology*, 2, Pisa/Rome.
- Cavenaile, R. (1948–1949), *Le latin d'Égypte et son influence sur le grec*, Ph.D. thesis, Liège.
- (1956–1958), *Corpus papyrorum Latinarum*, 1–4, Wiesbaden.
- (1987), "Le latin dans les milieux chrétiens d'Égypte," in: Janeras (ed.), 103–110.
- Chantraine, P. (1992²), *Dictionnaire étymologique de la langue grecque. Histoire des mots*, Paris.
- Collard, F./Samama, É. (eds.) (2006), *Pharmacopoles et apothicaires. Les "pharmaciens" de l'Antiquité au Grand Siècle* (Actes des 4^e Rencontres d'histoire de la médecine, des pratiques et des représentations médicales dans les sociétés anciennes, Troyes, 20–21 janvier 2006), Paris.

- Corbier, M. (1985), "Dévaluation et évolution des prix (I^{er}–III^e siècles)," *Revue numismatique* 6^e Série, 27, 69–106.
- Cugusi, P. (1992), *Corpus epistularum Latinarum papyris tabulis ostracis seruatarum* (CEL), 1–2, Florence.
- Cuvigny, H. (1992), "La mort et la maladie (83–123)," in: Bingen (ed.), 75–109.
- (1997), "La mort et la maladie (191–223)," in: Bingen (ed.), 19–41.
- (ed.) (2003), *La route de Myos Hormos. L'armée romaine dans le désert oriental d'Égypte. Praesidia du désert de Bérénice*, 1.2, IFAO. Documents de fouilles 48.2, Le Caire.
- Dorandi, T. (1994), *Chartae Latinae antiquiores*, 42. Facsimile-edition of the Latin charters prior to the ninth century, Egypt, 2, Dietikon/Zürich.
- Ernout, A. (1962), *Pline l'Ancien. Histoire naturelle*. Livre 29, Paris.
- Evans, T.V./Obbink, D.D. (eds.) (2010), *The Language of the Papyri*, Oxford.
- Faure, P. (2006a), "Vindonissa," in: Guibal/Jouty/Kober/Vulliamy (eds.), 761–762.
- (2006b), "Armée romaine," in: Guibal/Jouty/Kober/Vulliamy (eds.), 61–62.
- Fink, R.O. (1958), "Hunt's Pridianum. British Museum Papyrus 2851," *Journal of Roman Studies* 48, 102–116.
- (1971), *Roman Military Records on Papyrus*, Cleveland.
- Fischer, K.-D. (2000), *Bibliographie des textes médicaux latins. Antiquité et Haut Moyen Âge. Premier Supplément (1986–1999)*, Saint-Étienne.
- Fournet, J.-L. (2003), "Langues, écritures et culture dans les *praesidia*," in: Cuvigny (ed.), 427–500.
- (2008), "Parfums et magie dans un papyrus copte inédit de Strasbourg (P. Strasb. K. 19)," in: Boud'hors/Louis (eds.), 157–166.
- /Magdelaine, C. (2001), "Liste de vins aromatisés à usage médical (réédition du PAlex 36)," in: Andorlini (ed.), 163–170 (pl. XV).
- Gourevitch, D. (1984), *Le triangle hippocratique dans le monde gréco-romain. Le malade, sa maladie et son médecin*, Paris.
- (1995), "Les voies de la connaissance. La médecine dans le monde romain," in: Grmek/Fantini/Bardinet Broso (eds.), 95–122.
- Grmek, M.D./Fantini, B./Bardinet Broso, M.L. (eds.) (1995), *Histoire de la pensée médicale en Occident*. 1. *Antiquité et Moyen Âge*, Paris.
- Guibal, J./Jouty, S./Kober, P./Vulliamy, D. (eds.) (2006), *Dictionnaire encyclopédique des Alpes*, Grenoble.
- Harrauer, H./Sijpesteijn, P.J. (1981), *Medizinische Rezepte und Verwandtes*, Vienna.
- Hofmann, H. (1983), *Die lateinischen Wörter im Griechischen bis 600 n. Chr.*, Inaugural-Dissertation, Erlangen/Nürnberg.
- Jackson, R. (2000²), *Doctors and Diseases in the Roman Empire*, London, (1988¹).

- Jamil Ragep, F./Ragep, S.P./Livesey, S. (eds.) (1996), *Tradition, Transmission, Transformation* (Proceedings of two conferences on premodern science held at the University of Oklahoma), Leiden.
- Janeras, S. (ed.) (1987), *Miscel·lània Papirològica Ramon Roca-Puig en el seu vuitantè aniversari*, Barcelona.
- Jones, W.H.S. (1963), *Pliny. Natural History*, 8, London/Cambridge.
- Kramer, B./Luppe, W./Maehler, H./Poethke, G. (eds.) (1997), *Akten des 21. Internationalen Papyrologenkongresses. Berlin, 13.–19.8.1995*, Stuttgart/Leipzig.
- Kramer, J. (1983), *Glossaria bilingua in papyris et membranis reperta*, Bonn.
- (1997), “Gewürze und Mulsum. Zur Bedeutung von *κονδίτος* und *κονδίτον* in den Papyri,” in: Kramer/Luppe/Maehler/Poethke (eds.), 547–555.
- (2001), *Glossaria bilingua altera (C. Gloss. Biling. II)*, Munich/Leipzig.
- (2004), “Essai d’une typologie des glossaires gréco-latins conservés sur papyrus,” *Archiv für Papyrusforschung und verwandte Gebiete* 50.1, 49–60.
- (2007), *Vulgarlateinische Altagsdokumente auf Papyri, Ostraka, Tüfelchen und Inschriften*, Berlin/New York.
- Lalou, É. (ed.) (1992), *Les tablettes à écrire de l’Antiquité à l’époque moderne* (Actes du colloque international du CNRS, Paris, Institut de France, 10–11 octobre 1990), Turnhout.
- Langslow, D.R. (1999), “The Language of Poetry and the Language of Science: The Latin Poets and ‘Medical Latin,’” in: Adams/Mayer (eds.), 183–225.
- (2000), *Medical Latin in the Roman Empire*, Oxford.
- Maravela-Solbakk, A. (2010), “*Vina fictitia* from Latin into Greek: The Evidence of the Papyri,” in: Evans/Obbink (eds.), 253–266.
- Marganne, M.-H. (2004), *Le livre médical dans le monde gréco-romain*, Liège.
- (2006), “Étiquettes de médicaments, listes de drogues, prescriptions et réceptaires dans l’Égypte gréco-romaine et byzantine,” in: Collard/Samama (eds.), 59–73.
- (2010), “Robert Cavenaile (1918–2007),” in: Capasso (ed.), 81–87.
- (2012), “Les extensions du fichier Mertens-Pack³ du CEDOPAL,” in: Schubert (ed.), 481–485.
- Marichal, R. (1979), “Les ostraca de Bu Njem,” *Comptes rendus de l’Académie des Inscriptions et Belles-Lettres* 123.3, 436–452.
- (1992), *Les ostraca de Bu Njem*, Tripoli.
- Mitthof, F. (2002), “Bemerkungen zu Papyri XV (Korr. Tyche 397–489),” *Tyche* 17, 241–262.
- Oates, J.F./Bagnall, R.S./Clackson, S.J./O’Brien, A.A./Sosin, J.D./Wilfong, T.G./Worp, K.A. (2001⁵), *Checklist of Editions of Greek, Latin, Demotic and Coptic Papyri, Ostraca and Tablets* (= *Bulletin of the American Society of Papyrologists. Supplements* 9), Oakville.

- Pack, R.A. (1965²), *The Greek and Latin Literary Texts from Graeco-Roman Egypt*, Ann Arbor (1952¹).
- Pigeaud, A./Pigeaud, J. (eds.) (2000), *Les textes médicaux latins comme littérature* (Actes du 4^e colloque international sur les textes médicaux latins du 1^{er} au 3 septembre 1998 à Nantes), Nantes.
- Rémy, B./Faure, P. (1996), "Les inscriptions de médecins découvertes sur le territoire des provinces de Germanie," *Revue des études anciennes* 98, 133–172.
- (2010), *Les médecins dans l'Occident romain (Péninsule ibérique, Bretagne, Gaules, Germanies)*, Paris.
- Sabbah, G./Corsetti, P.P./Fischer, K.-D. (1987), *Bibliographie des textes médicaux latins. Antiquité et Haut Moyen Âge*, Saint-Étienne.
- Schubert, P. (ed.) (2012), *Actes du 26^e congrès international de papyrologie, Université de Genève, 16–21 août 2010*.
- Speidel, M.A. (1996), *Die römischen Schreibtafeln von Vindonissa. Lateinische Texte des militärischen Alltags und ihre geschichtliche Bedeutung*, Baden-Dättwil.
- Staden, H. von (1996), "Liminal Perils. Early Roman Receptions of Greek Medicine," in: Jamil Ragep/Ragep/Livesey (eds.), 369–418.
- (2000), "The Dangers of Literature and the Need for Literacy: A. Cornelius Celsus on Reading and Writing," in: Pigeaud/Pigeaud (eds.), 355–368.
- Thomas, J.D. (1977), "Avoidance of Theta in Dating by Regnal Years," *Zeitschrift für Papyrologie und Epigraphik* 24, 241–243.
- (1992), "The Latin Writing-Tablets from Vindolanda in North Britain," in: Lalou (ed.), 203–209.
- Watson, G.R. (1952), "Theta Nigrum," *Journal of Roman Studies* 42, 56–62.
- Wilmanns, J.C. (1995), *Der Sanitätsdienst im Römischen Reich. Eine sozialgeschichtliche Studie zum römischen Militärsanitätswesen nebst einer Prosopographie des Sanitätspersonals*, Hildesheim.

2 *Iatromagical Papyri*

- Adams, J.N. (1993), "The Generic Use of *mula* and the Status and Employment of Female Mules in the Roman World," *Rheinisches Museum* 136.1, 35–61.
- (2003), *Bilingualism and the Latin Language*, Cambridge/New York.
- Audollent, A. (1904), *Defixionum tabellae quotquot innotuerunt tam in Graecis orientis quam in totius occidentis partibus praeter Atticas in "Corpore inscriptionum Atticarum" editas*, Paris.
- Bailey, D. (ed.) (1996), *Archaeological Research in Roman Egypt*, Ann Arbor.
- Bastianini, G./Casanova, A. (eds.) (2011), *I papiri letterari cristiani* (Atti del convegno internazionale di studi in memoria di Mario Naldini, Firenze, 10–11 giugno 2010, Firenze), Florence.

- Butler, A.J. (1978², 1914¹), *The Arab Conquest of Egypt and the Last Thirty Years of the Roman Dominion*, containing also *The treaty of Misr in Tabari* (1913) and *Babylon in Egypt* (1914), Fraser, P.M. (ed.) 2nd ed. with a crit. bibliogr. & additional docum., Oxford.
- Cavaillat, R. (1948), *Le latin d'Égypte et son influence sur le grec*, Université de Liège, (http://promethee.philo.ulg.ac.be/cedopal/MemoiresEtTheses/R_Cavaillat_thèse_vol.I.pdf).
- (1958), *Corpus papyrorum Latinarum*, 1–4, Wiesbaden, (<http://promethee.philo.ulg.ac.be/cedopal/Cavaillat.pdf>).
- Chapa, J. (2011), “Su demoni e angeli. Il Salmo 90 nel suo contesto,” in: Bastianini/Casanova (eds.), 59–90.
- Daniel, R.W./Maltomini, F. (1998), “From the African Psalter and Liturgy,” *Zeitschrift für Papyrologie und Epigraphik* 74, 253–265.
- De Bruyn, Th.S. (2006), “The Use of the Sanctus in Christian Greek Papyrus Amulets,” in: Young/Edwards/Parvis (eds.), 15–20.
- Faraone C.A. (1991), “The Agonistic Context of Early Greek Binding Spells,” in: Faraone/Obbink (eds.), 3–32.
- /Obbink, D. (eds.) (1991), *“Magika Hiera”: Ancient Greek Magic and Religion*, New York/Oxford.
- Gager, J.G. (1992), *Curse Tablets and Binding Spells from the Ancient World*, New York.
- Heintz, F. (1998), “Circus Curses and Their Archaeological Context,” *Journal of Roman Archaeology* 11, 337–342.
- Kotansky, R.D. (1994), *Greek Magical Amulets: The Inscribed Gold, Silver, Copper and Bronze “lamellae”: Text and Commentary*, Opladen.
- Kramer, J. (1988), “A Linguistic Commentary on Heidelberg’s Latin Papyrus Amulet,” *Zeitschrift für Papyrologie und Epigraphik* 74, 267–272.
- Kropp, A. (2008), *“Defixiones”: Ein aktuelles Corpus lateinischer Fluchtafeln*, Speyer.
- (2008), *Magische Sprachverwendung in vulgärlateinischen Fluchtafeln (“defixiones”)*, Tübingen.
- Loukianoff, E. (1950–1951), “La forteresse romaine du Vieux-Caire,” *Bulletin de l’Institut d’Égypte* 33, 285–293.
- Martin, A. (1983), “P. Vindob. L91, un fragment du *Pater* latin,” *Latomus* 42, 412–418.
- Martin, M. (2010), *Sois Maudit! Malédictions et envoûtements dans l’Antiquité*, Paris.
- Preisendanz, K. (1928–1931), *“Papyri Graecae magicae”. Die griechischen Zauberpapyri*, 2 vol., Berlin.
- (1940a), [without title], *Deutsche Literaturzeitung* 61.31–32, 739 (Mitteilungen: Akademieberichte, Heidelberg).
- (1940b), “Wichtige Überlieferungsquellen der antiken Magie,” *Forschungen und Fortschritte* 16.35–36, 408–409.

- Sheenan, P. (1996) "The Roman Fortress of Babylon in Old Cairo," in: Bailey (ed.), 95–97.
- Tomlin, R.S.O. (2004), "A Bilingual Charm for Health and Victory," *Zeitschrift für Papyrologie und Epigraphik* 149, 259–266.
- Tremel, J. (2004), "*Magica agonistica*". *Fluchtafeln im antiken Sport*, Hildesheim.
- Young, F./Edwards, M./Parvis, P. (eds.) (2006), *Liturgia et Cultus, Theologica et Philosophica, Critica et Philologica, Nachleben, First Two Centuries* (Papers Presented at the Fourteenth International Conference on Patristic Studies Held in Oxford 2003), Leuven.

PART 3

Anatomy and Pathology



Calcidius, Witness to Greek Medical Theories: Eye Anatomy and Pathology

Béatrice Bakhouché

Abstract

Calcidius is the only exegete of Plato's *Timaeus* whose commentary on this Greek dialogue concerned with eyesight has not been lost. This document is all the more valuable since the Latin version is the only testimony regarding theories of and treatments for eye diseases—two domains in which, as can be deduced from the terms used, the commentator is dependent on Greek. The part of the commentary about eyesight is also worthy of interest because it is the only one that openly attacks the *iuniores* with an overtly hostile tone. We propose to study Calcidius' exegesis of Plato's *Timaeus*, focusing on Calcidius' portrayal of Greek ophthalmological theories and practices and his representation of a group of people he openly attacks.

Many Latin authors who are not experts in medicine make references to medical theories.¹ Recently, F. Le Blay studied the extent of scientific popularisation, and more specifically medical popularisation, in authors such as Cicero (*Nat. deor.* 2.138), Seneca (*Nat.* 6.14.1–2), Pliny the Elder (*Nat.* 11.219–220), and the so-called “popularisers” like Gellius (18.10). This scientific veneer can also be found in authors such as Censorinus, who, especially in *Birthday* (*De die natali*), expounds a particularly long Hippocratic theory of human beings' critical periods of life and weekly rhythms.² Even Celsus, who gives evidence of his art in his *On Medicine* (*De medicina*), is now considered an Encyclopaedist³ rather than a stereotypical Roman physician. Platitudes of scientific and philosophical thought are thus created and often found across different texts.

※ Translated with the assistance of Jacqueline Corbière, subsequently revised by Jon Wilcox. All translations from Greek and Latin are mine unless otherwise noted.

1 I. Mazzini studied quotations from medical authors in non-medical literature; see his contribution in this volume.

2 Bakhouché (2001).

3 Le Blay (2009: 87).

Discussions of the eye and vision are often closely linked to their teleological function and, in a Christian context, to the action of divine providence. So Lactantius, in his *On the Workmanship of God* (*De opificio Dei*),⁴ presents a long discussion of the eye, broaching a few ideas we will rediscover, for example, in *On the Origin of the Man* (*De hominis origine*) by Basil of Caesarea: absence of a natural protection for humans, human orthostasis, vision, and, above all, eye morphology.⁵

In such a context, the uniqueness of the Calcidian text cannot be denied: the Latin exegete of Plato's *Timaeus* makes references—otherwise unknown—to Greek medical theories in specific sections of his commentary. These treat the pages Plato dedicates to the higher importance of eyesight compared to other senses. However, the uniqueness of this Latin testimony also lies in the hostile dimension which is overtly expressed at the end of the set of chapters dedicated to the knowledge of the eye. The exegete bitterly criticises the *iuniores* with a curious mixture of very original remarks, not found anywhere else, and platitudes of ancient medical tradition.

We will focus on the way medical references are inserted within a specific philosophical context; we will assess both the conventionality and the originality of these references; and we will question the hostile dimension of this set, and exclusively this set, of chapters.

Medicine and Philosophy

All references to medicine and physicians are located in the second section of the commentary. It comes after the part focused on the four “mathematical” sciences, the organisation of the cosmos, and the origin of soul (c. 8–118), and it precedes the last big part concerned with matter (c. 268–355). All the referenced authors, whether Hippocrates (quoted in chapter 206), Asclepiades (c. 215), Alcmaeon of Croton, or Herophilus (mentioned in the chapters that interest us), are Greek. In addition, the vocabulary used by Calcidius moves between translation and transcription of Greek terms; we will later verify references to medicine which are references to Greek medicine.

4 Bakhouché (2005); Bakhouché (2008); Bakhouché/Luciani (2009).

5 The authors of *Hexaemeron* usually do not think vision is very important, as can be seen in Origen's texts, *Homelies on Hexaemeron* by Basil of Caesarea, or *On Creation* by Gregory of Nyssa. In Latin literature one can find it in the three commentaries on Genesis by Augustine or *Hexaemeron* by his contemporary Ambrose, who only speaks (*Hex.* 6.8.59) about the protective function of eyelids and eyelashes, which was already present in Lactantius' or Basil's texts.

What role do the chapters about sight and the eye play in the structure of the commentary? The structure is roughly that of *Timaeus*: Plato devoted two passages⁶ of *Timaeus* to the creation of the human being and to the anatomy and physiology of the human body. Within these parts, the philosopher had emphasised the importance of senses. He focuses primarily on eyesight,⁷ mainly for its teleological function: the eye is the means of linking perceptible reality to the soul and, by its own composition, the soul is the medium which is situated between what is perceptible and what is intelligible.

Unfortunately, no Greek commentaries on these Platonic pages have been preserved, whether from Galen, Iamblichus, or Proclus. Calcidius is therefore the only known exegete, but we find extensive discussion of medical theories in this passage of Latin commentary. Furthermore, like Plato before him, Calcidius gives priority to eyesight in detriment to the other senses.

In J.H. Waszink's edition, three sets of chapters are dedicated to eyesight:

10. *On Vision (De uisu)* c. 236–248;
11. *On Images (De imaginibus)* c. 249–263;
12. *Praise of Seeing (Laus uidendi)* c. 264–267.

These titles are, undoubtedly, somewhat artificial because they are the result of divisions made by editors in the Latin text on the basis of the “table of contents” that Calcidius himself proposes in chapter 7 of his commentary. Yet in these three sections Calcidius offer a well-defined research subject: first of all, he addresses the principle of eyesight, eye disorders, and eye anatomy. Then, in the following section, he treats all types of seeing—by reflection, by refraction, or by transparency. And finally, in the third section, he explains Plato's text.

We will set aside chapters 249 to 263, which focus on optical phenomena, as well as section 12, characterised by a paraphrastic reading of the Greek text, so that we only focus on the chapters of section 10.

After considering the different theories on eyesight according to the different philosophical schools, Calcidius defines the mechanism of eyesight. He then describes the main types of vision before moving on to ocular pathology and, further in the text, to eye anatomy. The doxographical nature of the first chapters is immediately underlined by the commentator himself: from the very beginning of chapter 236, Calcidius announces that he will evoke all the theories on vision different from those of Plato “to give,” he says, “the most complete

6 42d5–47e2 and 77c5–89d2.

7 45b2–46c6 (Waterfield/Gregory [eds.] [2008]).

view possible on the subject.” Then he enumerates, as any good doxographer should, the Epicureans, Heraclitus, the Stoics, and “the geometricians, in agreement with the Peripatetics” (c. 238); the exegete dedicates chapter 238 to 243 to this group. This collection ends with a straightforward concluding sentence in chapter 243:

Here are the theories about vision put forward by the ancients.

In this section, we find a curious mixture of technical descriptions and general definitions like the description of vision in chapter 238, which is attributed to the “geometricians and Peripatetics”:

Geometrae cum Peripateticis concinentes radii effusione uisum operari putant, cum per fulgidam lucidamque pupulae stolam in directum emicans radius serenam porrigit lineam, quae gyris oculorum circumueta motibus dispergat undique lucem contemplationis; quippe teres et levis oculi globus et humori lubrico uelut innatans sequacem lineam uisus utrobique facile contorquet (Calcidius 238).

The geometricians, in agreement with the Peripatetics, believe that eyesight depends on the emission of a light beam; when, going through the luminous and brilliant membrane of the pupil, the beam emitted in a straight line follows a perfect path which, embracing all things around thanks to the eye’s circular movements, spreads around the light from the eyesight. Certainly the eye socket, which is spherical and light and which floats, so to speak, in a viscous humour, easily directs the path of vision one way or another.

The Calcidian sentence can be linked to the very neutral definitions of popularisers such as Aulus Gellius or Lactantius, whose description, like the one by Calcidius, is both imprecise and non-technical:

Ergo ineffabilis diuinae prouidentiae uirtus fecit duos simillimos orbes eosque ita deuinxit, ut non in totum conuerti, sed moueri tamen ac flecti cum modo possent, orbes autem ipsos umoris puri ac liquidi plenos esse uoluit, in quorum media parte scintillae luminum conclusae tenerentur, quas pupillas nuncupamus, in quibus puris atque subtilibus cernendi sensus ac ratio continetur. Per eos igitur orbes se ipsam mens intendit ut uideat miraue ratione in unum miscetur et coniungitur amborum luminum uisus (Lact. *Opif.* 8.16–17).

Therefore the unspeakable power of the divine providence made two orbs most resembling each other, and bound them together so that they might be able not only to be altogether turned, but to be moved and directed with moderation. And He willed that the orbs themselves should be full of a pure and clear moisture, in the middle part of which sparks of lights might be kept shut up, which we call the pupils, in which, being pure and delicate, are contained the faculty and method of seeing. The mind therefore directs itself through these orbs that it may see, and the sight of both the eyes is mingled and joined together in a wonderful manner (trans. by Fletcher).

In both excerpts, no specific term of eye anatomy is used with the exception of “pupil.” What does the eye-surrounding *humor lubricus* indicate? Is it the aqueous humour or the conjunctiva? Should we be content with literally translating it to “viscous humour”? Does the similar expression *umor purus ac liquidus* used by Lactantius refer to the same thing? It is possible if the word *orbes* means eye sockets, but it is impossible if the same word is used for eye globes because then *umor* would refer to vitreous body. The principle of seeing is reduced to almost nothing; it is limited to the meeting of both rays from the eyes.

In comparison with the very superficial passage by Lactantius, Calcidius’ text seems more detailed in spite of its non-technical vocabulary. It seems that he goes from the visual beam to the cone of vision with the group *gyris oculorum circumuecta* (“embracing [all things] around thanks to the eye’s circular movements”). This is confirmed by comparison with another excerpt from Nemesios, which is quite similar to that by Calcidius and in which, moreover, the Bishop of Emesa refers to the geometricians:

Οἱ δὲ γεωμέτραι κώνους ἀναγράφουσιν ἐκ τῆς συνεμπτώσεως τῶν ἀκτίνων γινομένων, τῶν ἐκπεμπομένων διὰ τῶν ὀφθαλμῶν. Πέμπειν γὰρ ἀκτῖνας, τὸν μὲν δεξιὸν ὀφθαλμὸν ἐπὶ τὰ ἀριστερά, τὸν δὲ ἀριστερὸν ἐπὶ τὰ δεξιὰ· ἀπὸ δὲ τῆς συνεμπτώσεως αὐτῶν ἀποτελεῖσθαι κώνον ὅθεν ὁμοῦ μὲν πολλὰ περιλαμβάνειν ὁρατὰ τὴν ὄψιν, βλέπειν δὲ ἀκριβῶς ἐκεῖνα, ἔνθα ἂν συμπέσωσιν αἱ ἀκτῖνες (Nemes. *Nat. hom.* 7.78–79).

Geometricians draw cones which are formed from the intersection of the rays sent out through eyes. For [they say that] [the eyes] send out rays, the right eye to the left, the left eye to the right, and as a result a cone is formed by their intersection, which is why sight can encompass many visible things all at once, but sees exactly [only] those parts where the rays intersect (trans. by Sharples/van der Eijk).

Thus, we find a very imprecise vocabulary for a very general definition of sight, issued more from the doxographic tradition than from the medical one. Besides, attributing to Aristotle a theory giving the eye an active role is highly improbable because he claimed that sensation is a passive phenomenon.⁸ But this idea may have been adopted by certain late Peripatetics such as Simplicius, who writes in his commentary *On the Heaven* (*De caelo*):

Θεόφραστος μὲν ἀπὸ ὀφθαλμῶν ἀνθρώπου φλόγα ἐκκριθῆναι ἱστορεῖ (Simpl. *De cael.* 602.5–6h).

Theophrastus observes that a flame is emitted from human eyes.

Nevertheless, through a conventional approach to sight, a standardised system is taking shape. It erodes the doctrinal differences within the familiar schools of philosophy (naturally, excluding the Epicureans) and constitutes a sort of scientific *koiné*. It is not new: already in the second century B.C., in the works on “mathematical” optics by Galen or Ptolemy, “a basic visual model”⁹ is emerging, defining itself as a phenomenon of *extramissio* (“emitting outside”) of rays coming from the eyes rather than the opposite. We can find in Isidore (*Orig.* 11.1.20), for example, the expression of this synthetic theory linking the Platonic idea of the beams—one interior beam emanating from the eye, the other beam arriving to the eye from the outside world—and the Stoic heritage of the creation of a visual cone.

Eye Anatomy and Pathology

In chapter 243 and 246, medicine is precisely cited as evidence for the uniqueness of the visual beam emitted by the eye on two occasions: first as part of eye pathologies, then as part of eye anatomy. Strangely enough, the logical order used by medical treatises—anatomy, pathology—followed, for example, by Celsus (7.7.13) is not observed.

Eye Anatomy

In order to describe the eye, Calcidius quotes those he undoubtedly considers as the greatest authorities in Greek medicine on anatomy, Alcmaeon of

⁸ Arist. *De an.* 2.7.419a17–18: Πάσχοντος γάρ τι τοῦ αἰσθητηρίου γίνεται τὸ ὁρᾶν.

⁹ Lehoux (2007: 451).

Croton and Herophilus of Chalcedon, in chapter 246. Although the latter is often mentioned in medical and non-medical texts, this is the only instance of a Latin reference to Alcmaeon. However, these obligatory and prestigious references to Alcmaeon and Herophilus are certainly not responsible for the imprecise arguments of Calcidius:

Demonstranda igitur oculi natura est de qua cum plerique alii tum Alcmaeo Crotoniensis, in physicis exercitatus quique primus exectionem aggredi est ausus, et Callisthenes, Aristotelis auditor, et Herophilus multa et praeclara in lucem protulerunt: duas esse angustas semitas quae a cerebri sede, in qua est sita potestas animae summa et principalis, ad oculorum cauernas meent naturalem spiritum continentes; quae cum ex uno initio eademque radice progressae aliquantisper coniunctae sint in frontis intimis; separatae biui specie perueniant ad oculorum concauas sedes, qua superciliorum obliqui tramites porriguntur, sinuataeque illic, tunicarum gremio naturalem humorem recipiente, globos complent munitos tegmine palpebrarum, ex quo appellantur orbis. Porro quod ex una sede progrediantur luciferae semitae, docet quidem sectio principaliter, nihilo minus tamen intellegitur ex eo quoque quod uterque oculus moueatur una nec alter sine altero moueri queat. Oculi porro ipsius continentiam in quattuor membranis seu tunicis notauerunt disparili soliditate; quarum differentiam proprietatemque si quis persequi uelit maiorem proposita materia suscipiet laborem (Calcidius 246).

We must therefore explain the nature of the eye. On this subject, Alcmaeon of Croton—a specialist in research on nature and the first to daringly perform a dissection—, Callisthenes (Aristotle's disciple), and Herophilus, among many other thinkers, get to the bottom of many important points. There are two narrow ducts which, starting from the brain where the main leading power of the soul is located, arrive at the ocular sockets transporting the natural breath. These ducts, leaving from a sole departure point and source, merge at a certain distance in the deepest part of the forehead; they separate into two branches in order to arrive at the ocular sockets, following the oblique path of the eyebrows. Then, after meandering, they reach eyeballs containing the vital humour within the membranes; those “eyeballs” are protected by the eyelids (hence their name “eyeballs”). What allows us to know the uniqueness of the origin of these light-transmitting ducts is of course largely demonstrated by dissection. However, it can be also understood from the fact that both eyes move together and one cannot move separately from the other. It is also observed that the eye itself is composed of four membranes or coverings

of different consistency. The desire to know the different characteristics of each one would be a task disproportionate to the subject.

Herophilus lived during the first half of the third century B.C. This famous anatomist was especially preoccupied by the nervous and vascular systems, the eyes, and the heart.¹⁰ Celsus himself, as well as Galen, mentions him when he describes the eye: he is the unavoidable *auctor* as far as ocular anatomy is concerned; he is the pre-eminent “anatomist,”¹¹ consistently quoted in antiquity when dealing with eye anatomy—a well-known field in ancient times largely thanks to Herophilus. The reason why he made great contributions to the knowledge of the human body lies in his dissections: is that what Calcidius attributes to Alcmaeon? The latter was a physician from the school of Croton and a contemporary of Pythagoras;¹² according to him, “all the senses are connected in some way with the brain”¹³ as mentioned in the Latin text about sight. Callisthenes can be added to these prestigious names. He lived with his great uncle—and master—Aristotle but we do not know whether he was interested in medicine in general and dissection in particular. Callisthenes of Olynthus,¹⁴ known especially as a historian and companion of Alexander the Great in Asia, was a very cultured man, and he was also interested in natural history (earthquakes or the flooding of the Nile). Throughout his life, he was a friend of Theophrastus, who was previously mentioned in a quotation from Simplicius about sight. Nothing prevents us from believing that Callisthenes was also interested in life sciences: he may have been one of those Aristotelians interested in the history of science because Aristotle and other members of the Peripatetic school had developed research projects about the history of science.¹⁵ Eudemus, who is quoted by Galen (in his turn associated with Herophilus),¹⁶ did the same. We can also believe that Callisthenes wrote about the history of medicine, although there is no text referring to it.

The weaknesses of the Calcidian argument are certainly due to the fact that the three previously mentioned references about discoveries or practice can actually be attributed to only one writer, Herophilus. So what does the term *exectio*, a practice apparently used by the three men and applied specifically

10 Sieveking (1912) and von Staden (1989).

11 Potter (1976: 46).

12 Arist. *Mete.* A 5.986a–b and Mansfeld (1975).

13 Fr. A5 (Diels/Kranz [eds.]).

14 Cf. the long note on him by W. Spoerri (1994).

15 van der Eijk (2009: 109).

16 Tert. *Anim.* 10.4.

to Alcmaeon, really mean? Do we need to decide, as Longrigg does (1998: 169), that the *exectio* performed by Alcmaeon refers to a surgical operation? It is unlikely, because it deals with “understanding the wonders of nature when it works well.” Furthermore, Tertullian used the same term in his treatise on the soul to evoke the dissections carried out by Herophilus.¹⁷ Likewise, the discovery of the eye’s four membranes, which was made by the only Alexandrian anatomist, is attributed to a—collective or impersonal?—third person plural pronoun. Apparently, what brings together the three men is the sentence after their names: “There are two narrow ducts starting from the brain, where the master power and soul-directing power reside, which arrive at the eye sockets bringing the natural *spiritus*” which justifies the whole argument on sight: it is less about proving the origin of the sense than locating the soul’s *hegemonikon* in the brain.

The above-mentioned authorities cannot be put on the same level: we have the Pythagorean, the Aristotelian, and the anatomist’s (mixture of Hippocratism and Aristotelianism) points of view. All we have left is the fact that Calcidius’ testimony—coherent in spite of everything if our hypothesis is valid—is unique.

The description of the eye is brief and far from the complexity of Celsus’ anatomical descriptions:

Is (*scil.* oculus) igitur summas habet duas tunicas: ex quibus superior a Graecis ceratoides uocatur. Ea, qua parte alba est, satis crassa; pupillae loco extenuatur. Huic interior adiuncta est, media parte, qua pupilla est, modico foramine concaua; circa tenuis, ulterioribus partibus ipsa quoque plenior: quae chor<i>oides a Graecis nominatur. Hae duae tunicae, cum interiora oculi cingant, rursus sub his coeunt, extenuataeque et in unum coactae <per> foramen, quod inter ossa est, ad membranam cerebri perueniunt, eique inhaerescunt. Sub his autem, qua parte pupilla est, locus uacuu est: deinde infra rursus tenuissima tunica, quam Herophilus arachnoidem nominauit. Ea media subsidit*** eoque cauo continet

17 Tert. *Anim.* 10.4: *Herophilus ille medicus aut lanius, qui sexcentos exsecuit, ut naturam scrutaretur, qui hominem odiit, ut nosset, nescio an omnia interna eius liquido explorarit, ipsa morte mutante quae uixerant, et morte non simplici, sed ipsa inter artificia exsectionis errante*, “As to this Herophilus, a physician or a butcher, who dissected thousands of bodies to scrutinise nature and, knowing him, hated man, I do not know if he investigated all his inner marvels, because death changes what once lived and, above all, not being uniform, it gets lost in its way even into the very process of dissection” (French trans. by de Genoude).

quiddam, quod a uitri similitudine hyaloides Graeci uocant. Id <neque liquidum,> neque aridum est, sed quasi concretus humor: ex cuius colore pupillae color uel niger est, uel caesius, cum summa tunica tota alba sit: id autem superueniens ab interiore parte membranula . . . includit. Super his gutta humoris est, oui albo similis, a qua uidendi facultas proficiscitur: crystalloides a Graecis nominatur (7.7.13 Marx).

The eyeball, then, has two external tunics, of which the outer is called by the Greek *ceratoides*. In that part of the eye which is white it is fairly thick; over the region of the pupil it is thin. To this tunic the under one is joined; in the middle where the pupil is, it is pierced by a small hole: around this it is thin, further out it too is thicker and is called by the Greeks *chorioides*. These two tunics whilst enclosing the contents of the eyeball, coalesce again behind it, and after becoming thinned out and fused into one, go through the space between the bones, and adhere to the membrane of the brain. Under these two tunics, at the spot where the pupil is, there is the thinnest tunic, which Herophilus named *arachnoides*. At its middle the *arachnoides* is cupped, and contained in that hollow is what, from its resemblance to glass, the Greeks call *hyaloides*; it is humour, neither fluid nor thick, but as it were curdled, and upon its colour is dependent the colour of the pupil, whether black or steel-blue, since the outer tunic is quite white: but this humour is enclosed by that thin membrane which comes over it from the interior. In front of these is a drop of humour like white of egg, from which comes the faculty of seeing; it is named by the Greeks *crystalloides* (trans. by Spencer).

Unlike Celsus, the Latin commentator summarises Herophilus' anatomical discoveries and links them to Alcmaeon and Callisthenes. He describes an astonishing organisation of the optical system, with ducts starting from the top of the forehead (does he mean the brain? the *cerebrum*?). When describing cataracts and eye morphology, Celsus (7.7.13) attributes to Herophilus the naming of a very thin eye membrane called the *arachnoides* apparently corresponding to the retina. In his two treatises,¹⁸ Galen cited the Chalcedonian physician but not the Crotonian physician, saying that Herophilus called the optic nerves *πόροι* "passages" (cf. *semita*) because the *πνεῦμα* (cf. *naturalem spiritum continentes*, "transporting the natural breath")¹⁹ runs through them. In contrast with Celsus or Galen, Calcidius goes straight to the ducts starting at the brain

18 *De usu part.* 10.12 (3.813 K.) and *De symptomatum causis* 2 (7.95–96 K.).

19 von Staden (1989: 252–254).

and carrying the *spiritus naturalis*, that is, the πνεῦμα. This idea will become an *opinio communis*, which can be found in Isidore (*Orig.* 11.1.21). The—definitely Greek—source of the Latin commentator cannot be identified, although some similarities with Galen’s discourse can be found—for instance, the location of the eyeballs “under the eyebrows” according to the Greek author (*On the Utility of the Parts De usu partium* 8.5 [3.633K.]), and the *spiritus* which goes from “top to bottom,” as if the ducts were situated on each side of the face.

Eye Pathology

Calcidius’ recurring references to ideas that can already be found in the Pergamene Greek philosopher and physician allow us to treat chapter 243. In this chapter, eye pathologies prove the uniqueness of the visual beams emanating from the eye:

Idem unum esse radium qui ex utroque oculo porrigitur argumentantur ex ea passione quae hypochysis dicitur et ex uisu eorum qui duplicia uidere creduntur et habere pupulas binas. Etenim cum crassus humor ita oculos obsederit ut non omnem eorum occupauerit et obtexerit ambitum, sed in medietate constiterit liberis hinc inde partibus uisus, tunc scisso radio diuiditur bifariam uisus et qui hoc uitio laborant duplicia uidere se censent. Ergo etiam in geminis pupulis idem uitium medicorum detegit experientia; namque bicori naturali quidem pupula recte quae sunt uident, illa uero alia simulacra rerum. Quapropter medici quod plus est quam natura desiderat tollunt et illam praeter naturam pupulam interimunt imposita cicatrice; quo facto reuocatur uisus naturalis integritas (Calcidius 243).

They also maintain that there is only one ray coming out of both eyes, the source of disorders called respectively *hypochysis* and double vision. They believe those who suffer from these disorders have two pupils in each eye. Indeed, when some thick humour settles in the eyes without occupying or blocking the whole eyeball, but when staying in the middle and leaving space for sight on each side, when the beam splits into two, the person believes they are seeing double. Medical practice reveals the same problem in people with double pupils. Indeed, if there are two pupils, one correctly sees objects with the natural pupil, but sees images of those objects with the other. That is why physicians eliminate what exceeds nature’s demands and surgically remove the non-natural pupil. Once the removal is complete, the patient has normal sight.

Two eye disorders are mentioned: cataracts and diplopia, or double vision. The terms used are, in the first instance, a transliteration from Greek and, in the second, a semantic calque. I was unable to find other examples of the second disorder mentioned in Calcidius' text—two images caused by two pupils—even though a previous Greek model probably exists. Although J.H. Waszink,²⁰ the editor of Calcidius' comment, links the hapax legomenon *bicoris* ("having two pupils") to the Greek δίκορος with reference to several authors, I was unable to find any traces of the Greek term.

Waszink points out the "stupidity of the argument" (*socordia argumentationis*). According to him, the exegete does not evoke "those who apparently see double" after the excerpt about cataracts, but in the middle of it. Actually, the group construction *ex ea passione et ex usu eorum* ("[the source of disorders called] respectively *hypochysis* and double vision") is clear enough in its parallelism to underline that the uniqueness of the visual beam is proved by two different eye disorders: cataract and diplopia (double vision).

The term "cataract" is a Greek term without translation. Celsus uses a semantic calque to express it in Latin: *suffusio . . . oculi potentiae* (6.6.35: "the loss of eye's power"). This disorder had already been mentioned in the Greek world by Dioscorides (1.73; 2.12) and applied to animals by Aelian (*NA* 7.14). The latter mentions the case of the goat that knows how to self-treat blurry vision. The goat approaches a shrub and pokes its eyes against a thorn, making some liquid ooze out without damaging the pupils. According to Aelian, this disorder is what doctors call a cataract.

The same type of treatment is mentioned by ancient physicians such as Celsus, who dedicated a long text to treatment of and surgery for double vision in the ageing (6.6.35 and 7.7.13–14). Calcidius mentions only the semiology of this pathology: the thickening of the central part of the eye. Some researchers, such as M.-H. Marganne, question the identification of *hypochysis*: is it cataract? Is it glaucoma? In Calcidius' text, the thickening of the humour—in fact the loss of transparency of the crystalline lens—can easily be observed in patients actually suffering from cataract and, indeed, this pathology can lead to double vision in the affected eye.

The extreme brevity of Calcidius' text about the curative operation contrasts with the lengthy accuracy of Celsus' treatment. Let us leave out the meticulously detailed preparations prior to the surgery. Celsus describes the "cataract" operation with the same thoroughness:

20 *Apparatus exegeticus* p. 254.

Curari uero sinister oculus dextra manu, dexter sinistra debet. Tum acus admouenda est acuta, ut foret, non nimium tenuis; eaque demittenda sed recta est per summas duas tunicas medio loco inter oculi nigrum et angulum tempori propiorem, e regione mediae suffusionis sic, ne qua uena laedatur. Neque tamen <timide> demittenda est, quia inani loco excipitur; ad quem cum uentum est, ne mediocriter quidem peritus falli potest, quia prementi nihil renititur. Vbi eo uentum est, inclinanda acus ad ipsam suffusionem est leniterque ibi uerti et paulatim eam deducere infra regionem pupillae debet; ubi deinde eam transit, uehementius imprimi, ut inferiori parti insadat. Si haesit, curatio expleta est: si subinde redit, eadem acu concidenda, et in plures partes dissipanda est, quae singulae et facilius conduntur et minus late officiunt. Postea educenda recta acus est; imponendumque lana molli exceptum oui album, et supra quod inflammationem coerceat; atque ita deuinciendum (7.7.14 Marx).

Further, the left eye should be operated upon with the right hand, and the right eye with the left hand. Thereupon a needle is to be taken pointed enough to penetrate, yet not too fine; and this is to be inserted straight through the two outer tunics at a spot intermediate between the pupil of the eye and the angle adjacent to the temple, away from the middle of the cataract, in such a way that no vein is wounded. The needle should not be, however, entered timidly, for it passes into the empty space; and when this is reached even a man of moderate experience cannot be mistaken, for there is then no resistance to pressure. When the spot is reached, the needle is to be sloped against the suffusion itself and should gently rotate there and little by little guide it below the region of the pupil; when the cataract has passed below the pupil it is pressed upon more firmly in order that it may settle below. If it sticks there the cure is accomplished; if it returns to some extent, it is to be cut up with the same needle and separated into several pieces, which can be the more easily slowed away singly, and form smaller obstacles to vision. After this the needle is drawn straight out; and soft wool soaked in white of egg is to put on, and above this something to check inflammation; and then bandages (trans. by Spencer).

Cataract surgery can be found in medieval treatises on ophthalmology: "An ancient technique called removal," E. Savage-Smith writes, "was common practice. This method, which probably came from India to ancient Greece, then to the Arab countries, consisted in pushing the crystalline lens, by inserting

a needle or a probe into the eye through the edge of the cornea.”²¹ Its Indian origin is not proven, and the Latin and Greek texts speak, as early as Hellenistic times, in favour of the existence of this type of surgical intervention in the Graeco-Roman world.

The Mediation of the Master

What appear to be separate epistemic fields—philosophical, optical, medical doxography—are actually different aspects of the same reality: philosophy. Philosophy guides the perception of the human body, determines the different attitudes of the physician when dealing with diseases in an approach that is as philosophical as it is technical, and produces different “sects.” In such a context, what gives a very strong coherence to these pages is the place that the founder of the Academy occupies in chapter 243:

Hae sunt de uisu probatae sententiae ueterum, qui mihi uidentur acceptis occasionibus a Platone suum proprium fecisse dogma. Nam cum ille perfectam rationem attulerit docueritque tam ipsam causam uidendi quam cetera quae causam sequuntur atque adiuuant et sine quibus non potest uisus existere, iuniores sumptis ex plena sententia partibus de isdem partibus tamquam de uniuersitate senserunt proptereaue, ut qui uera dicant, merito mouent; sed quia nulla partis perfectio est, aliquatenus succidunt, ut exposita Platonis sententia res ipsa monstrabit (Calcidius 243).

Here are the theories put forward by the ancients, which may be based on Plato’s theories, when they had the opportunity. Indeed, Plato suggested a perfect explanation of sight, indicating the cause and the effects that follow, which favours sight, and what makes sight fail. Those who came after Plato, by just taking some parts of his theory, considered these parts as the whole and gave themselves the merit, as if they were speaking the whole truth. Yet, as a partial explanation cannot be perfect, they fail one way or another as the facts will show once we finish presenting Plato’s doctrine.

Calcidius attributes to Plato the functions of geometrician, philosopher, and physician in a role that largely exceeds his role in *Timaeus*. Plato appears as the

21 Savage-Smith (1997: 204).

absolute master and the holder of Truth, who is to be believed when he claims the existence of one only visual beam emanating from the eyes. The Latin commentary sounds like a true hymn to Plato, the quasi-demiurge: a hymn to the all-knowing, undisputed, almighty Master.

In fact, the hyper-laudatory reference to Plato in these pages can be understood as stemming from a very polemical context. Two violent attacks by the exegete, in chapter 243 and chapter 246, aim at the depraved inheritors of the Platonic message:

His tam plene tamque diligenter elaboratis iuniores philosophi, ut non optimi heredes paternum censum in frustra dissipantes, perfectam atque uberem sententiam in mutilas opiniunculas ceciderunt.

Despite very complete and exact explanations, the philosophers who came after Plato (*iuniores philosophi*) behaved like unworthy inheritors squandering the paternal fortune, destroying a perfect and fruitful theory and reducing it to idiotic ranting.

For Calcidius, only Plato counts, only Plato holds the truth.²² However, the exegete's commentary does not only consist in the attribution of the master status but also shows a fierce opposition to a hypothesis considered completely unacceptable.

Both expressions—*iuniores et iuniores philosophi*—are undoubtedly aimed at the same group: “enemies” of Plato's thought who think that there may be two separate beams emitted by the eyes, one from each eye. The targeted group may be the Methodists because the philosophical thought behind the Methodist school of medicine is Scepticism. A logical consequence of Sceptical phenomenism is refusing to give importance to what is hidden. Hence the necessity for revealing what is hidden by means of dissection in order to prove the adversary's mistake. The rest of Methodism is not so different from Epicure's Atomism. From then on, the couplet addressed to the “young philosophers” could concern both groups of philosophers, thus opposing those who consider sight “action” (ἐνέργεια) and those who consider it “passion” (παθός).²³

However, it is not certain whether the diatribe refers to the medical field. Plato dedicates a specific part of his text to sight, which he considers the most important sense, because he has a teleological aim: seeing what is perceptible

²² Reydam-Schils (200: 314).

²³ Bakhouch (2005). On the debate over this medical sect in Scribonius Largus or Celsus, see the S. Sconocchia's contribution to this volume.

gives human beings access to the intelligible. Chapters 236–267 in Calcidius's commentary are about the relationship to the soul and the location of its directing part. Yet, when Galen, whose ideas are very close to those of Calcidius, wrote his *On the Doctrines of Hippocrates and Plato* (*De placitis Hippocratis et Platonis*), he also adopted a polemical attitude. At the beginning of Book 7 (which deals with sight), he distinguishes two attitudes—the “physicians” and the “philosophers”—that agree on the eminent role of the brain. The brain is indeed for some people the location of the origin of sensation and for others the highest part of the soul.²⁴ In this work, Galen is determined to refute Stoicism by attacking Chrysippus and his treatises on the soul and affects. According to the Stoics, the directing capacity of the soul—the seat of sensations and emotions—is located in the heart region, not in the head. Thus, these philosophers strongly defended this belief against the new discoveries of the physiologists of their time.²⁵

In the commentary on *Timaeus*, the medical explanations which take place throughout ten chapters have no meaning in themselves. They become meaningful only when related to a philosophical position that must be defended against the Stoics: the location of the *hegemonikon* in the brain.

Thus, in keeping with the exegete's method, which becomes systematic in the second part of his commentary, the discussion begins with conflicting opinions particular to the exegetic tradition, continues with a triple analysis of the eye—atomy, physiology and pathology—traditionally placed at 45b–46c of *Timaeus* on eyes and sight, and concludes on a real hymn to the superiority of the master.

All references to medicine are inserted in a doxographical and polemical context and can be defined by a direct connection to Greek: several Greek physicians and specialists of the history of medicine are cited by name. However, the Calcidian argument is more than a purely scientific excursus with its own objective and can only be justified from a philosophical perspective: making the brain the seat of the *hegemonikon*.

The way sight is treated by the Latin commentator perfectly shows the ideas put forward by Ph. van der Eijk that “the distinction between philosophy, medicine and the exact sciences is non-historical and positivist and . . . does not correspond to the view of the ancients themselves.”²⁶

24 “The physicians admitting that the power of sensation and motion flows from the brain to all animal's members, and the philosophers that the reasoning part of the soul is situated here” (7.1.4 de Lacy = 5.587 K.).

25 Long/Sedley (1987: n° 53).

26 van der Eijk (2009: 114).

Bibliography

- Bakhouché, B. (2001), "Arithmologie et cycles temporels. L'hebdomade de Censorinus", *Euphrosyne* 29, 267–275.
- (2005), "La théorie de la vision dans *Timée* (45b2–d2) et son commentaire par Calcidius (iv^e s. de notre ère)," *Plato, The Internet Journal of the International Plato Society* 5 [<http://www.nd.edu/~plato/>].
- (2008), "Écriture, réécriture, doxographie. La théorie de la vision dans quelques textes latins", in: Pérez/Griffe (eds.), 221–241.
- /Luciani, S. (2009), *Lactance. De opificio Dei*, édition et traduction commentée, Turnhout.
- Diels, H./Kranz, W. (eds.) (1972), *Die Fragmente der Vorsokratiker*, Zurich.
- Fletcher, W. (1867), *The Works of Lactantius*, 2, "On the Workmanship of God, or the Formation of Man," Ante-Nicene Christian Library 22, p. 49–91, Edimburgh [(= Roberts/Donaldson (eds.) (1985), 281–300].
- Goulet, R. (ed.) (1994), *Dictionnaire des philosophes antiques*, 2, Paris.
- Le Blay, F. (2009), "Quelle place pour la médecine? Étude d'un exemple de vulgarisation scientifique", in: Le Blay (ed.), 79–92.
- (ed.) (2009), *Transmettre les savoirs dans les mondes hellénistique et romain* (Actes du colloque "Doctrinarum disciplina". La transmission des savoirs dans les mondes hellénistique et romain, Nantes, mars 2007), Rennes.
- Lehoux, D. (2007), "Observers, Objects, and the Embedded Eye; Or, Seeing and Knowing in Ptolemy and Galen," *Isis* 98.3, 447–467 ill.
- Long, A.A./Sedley, D.N. (1987), *The Hellenistic Philosophers*, 2. *Greek and Latin Texts*, Cambridge [= (2001) *Les philosophes hellénistiques*, 2, Paris].
- Longrigg, J. (1998), *Greek Medicine. From the Heroic to the Hellenistic Age: A Source Book*, London.
- Mansfeld, J. (1975), "Alcmaeon, φυσικός or Physician? With Some Remarks on Calcidius' *On Vision* Compared to Galen's *Plac. Hipp. Plat. VII*", in: Mansfeld/de Rijk (eds.), 26–38.
- /Rijk, L.M. de (eds.) (1975), *Kephalaion: Studies in Greek Philosophy and Its Continuation Offered to C.J. de Vogel*, Assen.
- Marganne, M.-H. (1980), "Glaucome ou cataracte? Sur l'emploi des dérivés de γλαυκός en ophtalmologie antique", *History and Philosophy of the Life Sciences* 1, 199–214.
- Pérez, B./Griffe, M. (eds.) (2008), *Grammairiens et philosophes dans l'Antiquité gréco-romaine*, Montpellier.
- Potter, P. (1976), "Herophilus of Chalcedon: An Assessment of His Place in the History of Anatomy," *Bulletin of the History of Medicine* 50, 45–60.
- Rashed, R./Morélon, R. (eds.) (1997), *Histoire des sciences arabes*, 3. *Technologie, alchimie et sciences de la vie*, Paris.

- Reydams-Schils, G.J. (2007), "Meta-Discourse: Plato's *Timaeus* according to Calcidius," *Phronesis* 52.3, 301–327.
- Roberts, A./Donaldson, A. (eds.) (1985), *The Ante-Nicene Fathers: Translations of the Writings of the Fathers Down to A.D. 325*, rev. and chronologically arranged, with brief pref. and occasional notes by A. Cleveland Coxe. Vol. 7, Lactantius. Venantius. Asterius. Victorinus. Dionysius. Apostolic Teaching and Constitutions. Homily. And Liturgies, Grand Rapids (Mich.).
- Savage-Smith, É. (1997), "Médecine", in: Rashed/Morélon (eds.), 155–212.
- Sharples, R.W./van der Eijk, Ph.J. (2008), *Nemesius: On the Nature of Man*, trans. with introd. and not., Liverpool.
- Sieveking, H. (1912), "Herophilos", *Paulys Real-Encyclopädie der classischen Altertumswissenschaft* 8, 1104–1110.
- Spencer, W.G. (1935–1938), *Celsus. De medicina*, London/Cambridge MA.
- Spoerri, W. (1994), "Callisthène d'Olynthe", in: Goulet (ed.), 183–221.
- Staden, H. von (1989), *Herophilus. The art of medicine in early Alexandria*, Cambridge.
- van der Eijk, Ph.J. (2009), "Développements récents dans l'étude de la doxographie de la philosophie et des sciences dans l'Antiquité", in: Le Blay (ed.), 107–116.
- Waszink, J.-H. (1962, 1975²), *Timaeus a Calcidio translatus commentarioque instructus*, London/Leiden.
- Waterfield, R./Gregory, A. (2008), *Plato: Timaeus and Critias*, Oxford.

Physical Pain in Celsus' *On Medicine*

Aurélien Gautherie

Abstract

Celsus' approach to physical pain in his *On Medicine* (*De medicina*) is both subtle and extensive. The encyclopaedist shows a deep consciousness of the difficulties of its evaluation and tries to tackle related issues as well as he can. Indeed, taking pain into consideration seems to play a major part in the relationship between the patient and the practitioner.

Introduction

No systematic study of physical pain in antiquity exists, and even though a reference book like Rey's *Histoire de la douleur* devotes a full chapter to this period, it can hardly fulfil the curiosity of a Classicist.¹ By specialists in antiquity, one can only find articles dealing with single authors,² with a specific part of the body,³ or written from a pharmacological perspective regarding pain relief remedies.⁴

Vt summum malum esse corporis dolorem opinor, sic sapientiam summum bonum.

Just like pain of the body is, I believe, the chief evil, wisdom is the highest good (trans. is mine).

※ I'm most grateful to Irene O'Daly and Graham Smith for their help in the translation of my article, subsequently revised by Jon Wilcox.

¹ Rey (1993¹: 14–51).

² On pain in the *Hippocratic Corpus*, cf. Byl (1992) and Villard (2006).

³ Cocher (1998).

⁴ E.g., the contribution of Valérie Bonet in this volume.

This sentence, most certainly echoing the second book of the Cicero's *Tusculan Disputations* (*Tusculanae disputationes*),⁵ was assumed by Augustine to be the transition between the medical and philosophical parts of Celsus' *Arts* (*Artes*). Though it might not be from Celsus himself, it gives a clear idea of how great a part physical pain plays in *On Medicine*. However, Celsian pain has not really attracted attention so far, even if, as we shall demonstrate, the encyclopaedist deals with most—if not all—aspects of it.

Our analysis will first focus on the place of physical pain in Celsus' *On Medicine*, before tackling the issue of pain evaluation and questioning the role of pain in the friendly medicine promoted by Celsus in his *Preface*.

The Place of Physical Pain in *On Medicine*

Were we to leave aside related words such as *punctio* ("throbbing pain"), *tormentum* ("torment") and *crucio* ("to torture"), the very noun *dolor* ("pain") is used by Celsus over two hundred times in *On Medicine*. Its occurrences are divided as follow: 115 in Books 1–4 on dietetics, sixty-five in Books 5–6 on pharmacology, forty-six in Books 7–8 on surgery. Overall, *dolor* is found on its own more densely present in *On Medicine* than is the lexical field of physical pain in the *Hippocratic Corpus*. In addition, *dolor* is more and more frequent as we move through the three main parts of *On Medicine*, with a notable increase in the books on surgery, probably because this part of medicine deals with more severe and therefore painful cases, and also because it demands more attention from the practitioner.

Besides this omnipresence of physical pain in *On Medicine*, it is worth noticing that it stands at the core of every moment of medical practice: diagnosis, therapeutics, and prognosis.

In the context of diagnoses, pain is a sign of an imminent illness to be cured three times out of four. The first step towards potential recovery is to locate physical pain. In *On Medicine*, almost every part of the body is concerned with pain, from the skull to the feet. Among the most prone to pain, head (*caput*) stands first (45x), especially because of headaches associated with fevers. The next most common are (not exhaustively) internal organs (28), eyes (22), and

5 Cf. the words credited by Cicero to Aristippus (*Tusc.* 2.15): *summum malum dolorem*, "pain is the chief evil." For Cicero this opinion is "one of a coward and of a woman" (*eneruatam muliebremque sententiam*). If Augustine's sentence is authentic, one measures the distance between the Roman philosopher and Celsus, who constantly reminds of the concrete dimension of pain, maybe because of his sincere devotion to the *alter dolens*, "the other suffering."

hips (14). With less than ten occurrences, are testicles (9), bladder (6), ribs (4), stomach (3), knees (2), and gums and fingers (1). Such a list highlights a clear tendency to locate pain as much as possible⁶ in an approach based on the idea that presence of pain often equals presence of illness, and besides, this theory was already to be found in the following passage of the *Hippocratic Corpus*, whose author relates pain locations and various types of peripneumonia:

καὶ οἷσι μὲν πρὸς τὴν μίαν κληῖδα ὁ πόνος γίνεται, ἢ ἄνω πτέρυξ τοῦ πλεύμονος ἢ μία νοσέει · οἷσι δὲ πρὸς ἄμφω τὰς κληῖδας ὁ πόνος γίνεται, αἱ ἄνω πτέρυγες τοῦ πλεύμονος ἄμφω νοσέουσιν · οἷσι δὲ κατὰ μέσσην τὴν πλευρὴν, ἢ μέσση · οἷσι δὲ πρὸς τὴν διάτασιν, ἢ κάτω · οἷσι δὲ πᾶν τὸ ἐν μέρος πονέει, πάντα τὰ κατὰ τοῦτο μέρος νοσέει (*Coac.* 394 [5.670–673 L.]).

and those whose pain appears next to one collarbone, the upper lobe of the lung on the same side is suffering. And those whose pain appears next to both collarbones, the upper lobe of both lungs are suffering. And those around the middle of the side, the middle of the lobe. And those next to the diaphragm, the lower part. And those on all one side, all around this side is suffering (trans. is mine).

As such, pain localisation constitutes a first essential step towards the apprehension of an ailment, and Celsus seems, on that issue, noticeably indebted to his Greek predecessor.

Once pain has been localised, it may also sometimes be possible to identify the illness of which it is a symptom, especially in the case of headaches or of many dermatological affections. Concerning these afflictions, one remarkable phenomenon is worth noticing: many diagnoses of Book 5 consist of a definition / description of a complaint, often with a clear differentiation from another similar one, using pain to distinguish one illness from another:

Myrmecia autem uocantur humiliora thymio durioraque, quae radices altius exigunt maioremque dolorem mouent⁷ (5.28.14c).

But those called myrmecia are less prominent and harder than thymion; their roots are more deeply fixed and they are more painful (trans. by Spencer).

6 Only around twenty out of 356 cases remain uncertain (i.e., less than 6%).

7 In this article, Latin text as in Spencer (1935–1938).

In this passage, Celsus uses, among other data, the variation of pain as a criterion to distinguish *myrmecia* from *acrochordon* and *thymion* (5.28.14a–b); organising these ulcers into a hierarchy in order to clarify the interpretation of morbid signs within one family of similar afflictions.⁸ In his constant concern for classification, Celsus shows once again his ability to conciliate epistemological precision with the practical requirements of medical art.

Within the diagnoses, pain localisation plays a major part, possibly followed by the naming of the illness. Concerning the latter, it is, overall, not very frequent and many cases remain uncertain. In fact, whereas pain localisation is an absolute necessity, the naming of the related illness seems somewhat secondary.

Pain deeply influences the choice of therapeutics, as proved by the fact that about half of the occurrences of the word *dolor* in *On Medicine* appear in that context. In two-thirds of these cases, the presence of pain helps the practitioner choose the best treatment or perform the proper surgical act. The last third is so varied that it clearly demonstrates that Celsus had a deep knowledge of the medical art. The Celsian approach of pain within therapeutics contains for example: absence of *dolor* to choose a treatment (5.26.25a); presence (1.5.2) or absence (7.20.4) of *dolor* as contraindication to a treatment; *dolor* outbreak to stop a treatment (5.28.1b); persistence of *dolor* to modify the therapy (4.29.2); pain ending as a criterion to stop a treatment (6.6.9c) or to begin a new therapeutic step (6.7.1c); repetition / recurrence of pain to challenge (7.20.3). The protean aspect of pain in the Celsian therapy is obvious. We shall now content ourselves with saying that it reveals a great attention, in every step of the therapeutical process, to the pain experienced and expressed by an ill person.

To fight the pain, *On Medicine* contains analgesics of different types, which we may classify into three categories, corresponding to the three parts of Celsus' work. The dietary analgesics go—without claiming to be exhaustive—from wormwood drinking (4.12) and bathing (4.31) to immersion into boiling oil (4.20) and shaving one's head (6.7). The variety of these remedies is linked, in our opinion, with the self-treatment dimension of Celsian dietetics, for ill persons may have been quite frequently led to launch the first attack on their

8 Here, one stands not far from the “paradigmatique du signe médical” which Roland Barthes (1972: 40), many centuries later, will call for: “[Il faudrait] opposer les signes médicaux entre eux, en tant que cette opposition entraînerait un changement de maladie; on ferait alors l'inventaire des signes médicaux dans la mesure où chacun d'eux s'oppose à un autre signe, cette opposition entraînant un changement du signifié, c'est-à-dire de la lecture de la maladie.”

own illnesses themselves. As for pharmacological pain relief treatments, poultices (7.20) and many compositions with various properties (e.g. 4.12, 5.18) can be found. Surgery mainly uses incision (7.1) and blood-letting (e.g. 2.10, 4.13). Finally, one cannot omit to mention the cases of the analgesic process independent of any human interaction, such as fortuitous nose bleeding (2.8) and fever (3.10), which, in the end, confirm the supremacy of nature over the medical art in *On Medicine*.

The majority of the analgesic process found in *On Medicine* already existed in the *Hippocratic Corpus*, so that it is hard to outline any Roman specificity in Celsus' work. We can however underline, despite the Hippocratic recourse to bathing, the importance of this remedy, considering the status of balneology in the Romanised world.

Taking into account various painful situations and offering numerous analgesic remedies, *On Medicine* promotes therapeutics anchored in the reality of the ailment, prepared for all contingencies and fully inclined to deal with the sufferings of the *alter dolens* ("the other suffering"), which are to be alleviated or erased by all means.

Within prognosis, pain can on one hand be regarded as the logical result of an illness or another symptom (2.7.27), or as the consequence of not using specific therapeutics (7.30.3b). On the other hand, it can also help to predict the outcome of a morbid state by its presence (4.13.1) or absence (5.26.27b). The following extract from Book 6 is revealing:

Tumor magnus si sine dolore est et siccus, sine ullo periculo est: si siccus quidem, sed cum dolore est, fere exulcerat, et nonnumquam ex eo casu fit, ut palpebra cum oculo glutinetur (6.6.1c).

If there is great swelling without pain, and dryness, there is no danger; if there is dryness, accompanied by pain, there is generally ulceration, and at times the result is that the eyelid sticks to the eyeball (trans. by Spencer).

Dealing with ocular affections, Celsus clearly makes pain a differential indicator in the prognosis. To an invariant element, he combines a variable (absence or presence of pain), which alone seems able to guide and confirm the practitioner's prediction.

In each step of the therapeutic process expounded by Celsus in his *On Medicine*, the variety of pains plays a great role, revealing a true sensibility to the issues raised by a phenomenon which can develop gradually.

The Evaluation of Pain in *On Medicine*

The challenging question of the evaluation of pain, which remains, until now, central in the concerns of many medical research groups, is already to be found in Celsus. If information about pain can only be transmitted by the patient (“he who suffers”), it sometimes goes as far as to shape some chapters of *On Medicine*. Within one single illness, pain can be presented not as unique, but as multiple, because it is likely to progress gradually. An extract from Book 4⁹ on joint pain clearly shows the Celsian habit:

Cum uero dolor urget, mane gestari debet; deinde ferri in ambulationem; ibi se dimouere, et, si podagra est, interpositis temporibus exiguis inuicem modo sedere, modo ingredi. . . . Vbi dolor uehemens urget, interest sine tumore is sit, an tumor cum calore, an tumores iam etiam obcalluerint. . . . Si maior est dolor, papaueris cortices in uino coquendi miscendique cum cerato sunt (4.31.3–5).

Now when the pain requires it, in the morning the patient should be rocked; then carried to a promenade; there he should move about, and in the case of podagra he should take short turns at sitting down and walking about. . . . When the pain is very severe, it makes a difference whether there is an absence of swelling, or a swelling with heat, or swellings which are already hardened. . . . If pain is greater, rind of poppyheads is to be boiled in wine, and mixed with wax-salve made up with rose oil (trans. by Spencer).

It is obvious that the different steps of the *dolor* organise the succession of medical prescriptions. One can observe a clear gradation between a first category of remedies consisting in simple hygienic rules, a second step (*uehemens*, “severe”) based on an inquiry about symptoms associated with pain, and finally a third step (*maior*, “greater”) connected with a medicine whose main component is poppy.¹⁰ Therefore, the evaluation of pain is essential to choose what kind of therapeutics to apply.

9 For similar structures of chapters, see also, for ex., 4.2.8, 4.6.5, 4.12.9, 6.9.

10 Poppy is still, along with willow, the origin of most analgesic. Cf. Lazorthes (1993: 71–98). On the use of poppy within the *Hippocratic Corpus*, Byl’s opinion (1992: 212–213) appears somewhat hasty, if not untrue, especially considering the work of Alain Touwaide or Valérie Bonnet.

The abundance of adjectives which qualify pain throughout *On Medicine* is also worth noting. A total of twenty-two adjectives are used by Celsus to specify the nature and/or degree of *dolor*, according to its size, severity, and chronology or according to a value judgement based on morals ([*in*]-*tolerabilis*, “[un]bearable”). Far from being mere rhetorical criteria, these adjectives seem to refer to precise medical realities.¹¹ In his *Book of Recipes* (*Compositiones*), Scribonius Largus, Celsus’ contemporary, only makes use of ten adjectives to qualify the substantive *dolor*, six of which concern the chronology of pain, the other four its degree. Indeed, it seems that Celsus was unique, in his time, in his approach to pain. About half a century later, Aretaeus of Cappadocia would continue the Celsian process, and most of all Galen, following a habit of his, would define and classify more precisely the different types of pain, especially in his *On Affected Parts* (*De locis affectis*), but also in his *Therapeutics to Glaucon* (*Ad Glauconem de methodo medendi*), where he establishes a correlation between the colour of the illness and the degree of pain.¹² In the history of medicine, it seems to us that *On Medicine* plays an essential part as a first attempt in the Latin language to determine with more precision the various degrees and types of pains, an attempt to which Galen would add a more scientific dimension and which culminates in more recent works such as the *McGill Pain Questionnaire* developed by Melzack and Torgerson in 1971.

In spite of all the efforts made by Celsus to qualify and classify the various pains, its evaluation inevitably comes up against the eminently subjective dimension of this notion. Two individuals do not share the same threshold of pain nor the same tolerance to it. Each pain is specific to the person who suffers from it, and one’s “intolerable pain” (*dolor intolerabilis*) will only be a “moderate pain” (*dolor mediocris*) to another. As already expressed in the *Hippocratic Corpus*:

Οἱ μὲν ταλαιπωρότεροί εἰσιν ἐν τῇσι νούσοισιν, οἱ δὲ παντάπασι ταλαιπωρῶναι ἀδύνατοι (*Morb.* 1.16 [6.170–171 L.]).

Some people endure illnesses more easily, others are completely unable to endure them (trans. is mine).¹³

11 The subjective dimension of pain prevents one from having absolute certainties on this question. Nonetheless, the classification of affections according to the degree of pain seems to correspond to a medical reality.

12 On this question, cf. Boehm (2002).

13 By Galen we also found distinctions, from this point of view, between rurals and citizens.

Moreover, the gap between pain as it is perceived (or “percept”) and expressed (or “concept”) seems unlikely to be bridged. Putting pain into words does not go without problems, for it gives birth to pain but, at the same time, is already something else. If to express one’s pain is actually making pain exist, the use of language constitutes an irremediable hiatus between percept and concept.

Such difficulties may explain the simplicity of the words used in the proximity of *dolor*. Among adjectives that qualify it or verbs of which it is either subject or complement, only one, *sanabilis* (“that can be healed”), belongs specifically to the medical world.¹⁴ Whether this is due to the author’s will to use a simple language when tackling such a complex question or to an imitation of the vague and unskilled vocabulary used by patients about their pains, it gives a good account of the inevitable ambiguity when expressing them.¹⁵ In the antique world, it is only Galen who, one century later, will most concentrate his efforts on describing this situation, especially in his *On Affected Parts* (*De locis affectis*).¹⁶ Anyhow, pain is and will always be approximate, and the practitioner has, in his art, to make do with an always distant nearness. His task is arduous indeed, he must try to comprehend a feeling of which the patient is the sole owner and which can never be translated and transmitted accurately.

Out of this state of uncertainty arises the issue of the potential use of *On Medicine* by its readers. It seems a real challenge indeed to connect the pains described in Celsus’ work with those encountered in the medical practice. Over a hundred times, pain as a subjective phenomenon is counterbalanced by one or more highly subjective symptom(s),¹⁷ more easily observable and/or measurable. An exhaustive list of these really helps one to understand the sharp attention paid by Celsus to this question. Behind a trio made up of “inflammation” (*inflammatio*, 20x), “swelling” (*tumor*), and “fever” (*febris*, 12x), follows a great variety of pathologies appearing from one to four times within *On Medicine*, as for instance “redness” (*rubor*), “cough” (*tussis*), “vomiting” (*uomit*), “tear” (*lacrima*), or “hiccups” (*singultus*). So, the practitioner willing to use *On Medicine* as a handbook would not be navigating the vagaries of pain without a compass. The other objective symptoms to which pain is sometimes

14 Only the verbs *discutio* (“to strike asunder, dash to pieces, shatter”), *excrucio* (“to torment, torture, rack, plague”), and *inuetero* (“to make old, give age to”) may seem somewhat sophisticated.

15 See Guyard (2009: 153).

16 On the feeling of pain in Galen, see Boudon (2003: 23–25).

17 Pathologies linked with *dolor* not as symptoms of an illness but as consequences of climatological conditions or of the age of the patient have not been taken into account.

associated provide further helpful information and clearly compensate for the imprecision of the expression of pain.¹⁸

If Celsus sets out, in so much as he can, to underline the specificities of each painful case, he cannot do so without the universal nature of pain. At times, the experience of medical practice, the *usus*, fills the voids created as a consequence of the subjective dimension of pain. This rationalisation of experimental data, at the core of *On Medicine* (the famous *uia media* presented by Celsus in his *Preface*),¹⁹ stands as a crucial help for the healer, and partakes of the idea that Celsus, beyond any theoretical consideration, fully focuses on the care given to the “the other suffering” (*alter dolens*).

In Celsus' work, the universal dimension of pain is most of all linked with the different times of life and to climatological or seasonal criteria. Let us consider what Celsus writes at chapter 2.1:

At aestas non quidem uacat plerisque his morbis sed adicit... auricularum dolores... Vix quicquam ex his in autumnum non incidit: sed oriuntur quoque eo tempore... lienis dolor, ... coxae dolores... Hiemps autem capitis dolores... inritat (2.1.7–9).

But summer, while not wholly exempt from most of the foregoing maladies, adds to them... earaches... In autumn there is scarcely one of the foregoing which does not happen; but in this season in addition there arise... splenic pain, ... hip pain... Winter provokes headaches (trans. by Spencer slightly modified).

All seasonal painful pathologies listed by Celsus in this chapter appear to be drawn from Hippocrates' *Aphorisms*,²⁰ as illustrated by the following table:

TABLE 1 Aphorisms and On Medicine

<i>Aphorisms</i>	<i>On Medicine</i>	Translation
ὤτων πόνοι (3.21 [4.496 L.])	<i>auricularum dolores</i> (2.1.7)	earaches
σπλήνες, ... ἰσχιάδες (3.22 [4.496 L.])	<i>lienens dolor, ... coxae dolores</i> (2.1.8)	splenic pain, ... hip pain headaches
κεφαλαλγίαι (3.23 [4.496 L.])	<i>capitis dolores</i> (2.1.9)	

18 One finds similar descriptions in the *Hippocratic Corpus*. See Villard (2006: 68).

19 Cels. *Praef.* 45.

20 *Aph.* 3.21–22 (4.494–496 L.).

At the beginning of the part of *On Medicine* devoted to the ill man, Celsus, following the influence of the *Hippocratic Corpus*,²¹ expresses a series of “immutable laws” (*perpetua*), meant to stand as a framework to the forthcoming exceptions, and in which pain has its place.

One last remarkable element—from chapter 2.8, dealing with the spread of pain inside the body—is worth considering:

et quisquis dolor deorsum tendit, sanabilior est (2.8.15).

and pain of any kind which moves downwards is the more curable
(trans. by Spencer).

Omnis etiam dolor minus medicinae patet, qui sursum procedit (2.8.40).

All pain also becomes less amenable to treatment as it spreads upwards
(trans. by Spencer).

These two paragraphs complement each other well through the underlying opposition between “downwards” (*deorsum*) and “upwards” (*sursum*). In fact, even though they stand apart from each other in Celsus, they are most surely inherited from a single chapter of the *Prorrhetic* (*Prorrheticon*), dealing with joint pains:

Ἡ δὲ νοῦσος αὕτη ὁκόισι μὲν τὴν ὀσφὺν ἐκλείπουσα ἐς τὰ κάτω τρέπεται, θαρσύνει. Ὀκόισι δὲ τὰ τε ἰσχία καὶ τὴν ὀσφὺν μὴ ἐκλείπουσα ἐς τὰ ἄνω τρέπεται, προλέγειν δεινὰ εἶναι (*Prorrh.* 2.41 [9.70–73 L.]).

When this illness, leaving the hips, turns downwards, it is encouraging. But when it does not leave the lumbar vertebrae and the hips, and turns upwards, it must be prognosed as perilous (trans. is mine).

The adaptation of the Hippocratic heritage is remarkable and a sheer evidence of Celsus’ work of *compositio*. The encyclopaedist does not content himself with blindly repeating his sources, but uses them at his convenience. In fact, whereas the Hippocratic text is exclusively devoted to pains in the lower limbs, Celsus expands his Greek sources into general use for “any sort” (*quisquis, omnis*) of pain.

21 Mudry (1991).

If pain is omnipresent in *On Medicine*, Celsus seems aware of the limits inherent in the evaluation of it, and tries to offer solutions—within his means and those of his times, sometimes relying on the (Hippocratic) heritage of the medical *usus*—to weaken the effect of its vagueness.

Nevertheless, even vague pain is vital to the therapeutic process.²² It is indeed the proof that a relationship, as imperfect as it may be, has been initiated between the patient and the practitioner.

The Role of Pain in the Medicine between Friends Promoted by Celsus

As underlined by Annie Gauvain-Paquard and Michel Meignier:

Il n'y a pas d'accès direct à la douleur d'autrui. Toute approche de la douleur de l'autre passe par la communication.²³

Consequently, without any direct speech in *On Medicine*,²⁴ the mere occurrences of the noun *dolor* would testify to the necessary existence of a dialogue between individuals about pain—which from now on will be called a “painful dialogue.”

If the patient necessarily has to transmit his pain to his doctor, this can only take place within a friendly exchange. Indeed, if the patient is the only one to possess information concerning his own pain, the practitioner is the only one in possession of medical knowledge. In other words, just as the patient needs medical knowledge to be cured, or, at least, pain alleviated, the doctor needs information that can only be provided by the “the other suffering” (*alter dolens*). Obviously such a dialogue would be pointless without a minimum of mutual trust. We know however that ancient practitioners, following the footsteps of the *Hippocratic Corpus*, were sometimes wary of the patients' or their relatives' indications.²⁵ But Celsus, by granting pain so much importance in

²² Guyard (2009: 153).

²³ Gauvain-Piquard/Meignier (1993: 115).

²⁴ In the *Hippocratic Corpus*, one can (rarely) find direct speech (e.g., *Nat. Mul.* 48 [7.392 L.])—and instances of questioning led by the physicist (e.g., *Epid.* 7.11.1 [5.382 L.]).

²⁵ Authors of the *Hippocratic Corpus* often underline that a practitioner basing his diagnosis and treatment only on his questioning is no expert. On this topic, see Lain Entralgo (1970: 152–153). On the necessity of questioning to discern true pains from feigned ones, see Rufus of Ephesus, *Medical Questions* 41: Ἀλλὰ ἔστι μὲν καὶ οἷκτων διαγινώσκειν τοὺς πόνοὺς τῶν νοσούντων· χρὴ δὲ καὶ διαπυνθάνεσθαι, “But it is important to also distinguish

the medical art, seems willing to make both sides overtake their reticence in order to build a medicine suffused with “trust” (*fides*),²⁶ not only necessary to the painful dialogue, but also therapeutic in itself.²⁷ This reciprocal “trust,” whose social and philosophical aspects go far beyond the Greek “trust” (πίστις) to be found in Hippocratic texts, plays a major part in the establishing of the medicine between friends promoted by Celsus in his *Preface*.²⁸ The case of uterine pains evoked in Book 5 seems in perfect agreement with this idea:

Quaedam obmutescunt, quaedam mente labuntur, quaedam sui conpotes
neruorum oculorumque dolore urgeri se confitentur (5.26.13).

Some become speechless, some are mentally disturbed, others whilst composed in mind confess pain in their sinews and eyeballs (trans. by Spencer slightly modified).

The choice of the verb “to confess” (*confiteor*) cannot be neutral. We are indeed dealing with a true confession about intimate parts of the female body. That sort of confession is a striking sign of a relationship based on trust and of a certain proximity between the patient and the practitioner.

Trust can mostly be built in the course of time: another factor enhancing “friendship” (*amicitia*) is the continuity of the relationship between individuals. For the practitioner, it means a full and permanent attention paid to the patient—i.e. the follow-up—and a repeated taking into account of his words; for the patient, a renewed and strengthened credit granted to his therapist, either because he has already tested his prescriptions’ efficiency or because he has resigned to the fact that he cannot be cured but only alleviated.

This pattern involves a full consciousness of the chronological dimension of pain. The famous distinction made by ancient practitioners between acute and chronic diseases is found, in *On Medicine*, regarding acute and chronic pains.²⁹ Passages of the Celsian work seem to indicate that a doctor can be at the patient’s bedside throughout his illness, the evolution of which he himself follows. Let us consider an extract of Celsus’ chapter about hips:

true suffering among wailing; it is therefore necessary to search out by questioning” (trans. is mine).

26 Freyburger (1986: 177).

27 Marchand (2009: 121).

28 Mudry (1980: 17–20).

29 See, e.g., 3.2.1.

Initium a coxis faciam. Harum ingens dolor esse consuevit, isque hominem saepe debilitat et quosdam non dimittit . . . Fouendum primum aqua calida est, deinde utendum calidis cataplasmatibus. Maxime prodesse uidetur. . . Si ne sic quidem finitus dolor est, aut tumor ei accedit, incisa cute admouendae sunt cucurbitulae; mouenda urina; aluus, si compressa est, ducenda (4.29.1–2).

I shall begin with the hips. In these, severe pain is wont to occur, and this often weakens the patient, and some it never leaves . . . The hip is to be first fomented with hot water, after which hot plasters are applied. Those which appear to be especially beneficial. . . Every time that even these measures do not end the pain, or a swelling supervenes, the skin is incised and cups are to be applied; diuretics are to be given; and the bowels if costive are to be clystered (trans. by Spencer, slightly modified).

The final clause indicates a new therapeutic step, caused by the persistence of the pain. The sequence of various treatments (*ne sic quidem*) may reveal that the same practitioner has recourse to them. Anyway, one can see that pain is well taken into consideration by Celsus and seems to go as far as determining the modality of his text (*si* “if” + indicative).

A good example of a lasting painful dialogue can be found in Book 7, where Celsus tackles bowel problems:

Eo uero tempore superhabendum cataplasma ex lini semine, quod ante aliquis ex mulso decoxerit. Post haec et farina hordiacia cum resina inicienda, et is demittendus in solium aquae calidae, cui oleum quoque adiectum sit; dandumque aliquid cibi lenis calidi. Quidam etiam aluum ducunt. . . Per ea uero, quae supra scripta sunt, leuato malo, si quando alias dolor reuerterit, eadem modo ualere quae nouimus erunt facienda (7.20.3).

Meanwhile a plaster of linseed first boiled in honey wine is to be kept on over the hernia. Later one of barley meal with resin is to be applied, and the patient immersed in a bath of hot water to which olive oil has been added; after which some light warm food is to be given. Some also employ a clyster. . . When by the measures just described, the disease has been mitigated, if at any time pain recurs, the same measures will have to be repeated which we have just found to be beneficial (trans. by Spencer).

The pain described here is not cyclic but recurrent, as shown by the phrase *si quando* (“at any time”). But only the patient can tell the physicist about

the recurrence of such a pain whose critical periods are not known in advance.³⁰ Celsus proves himself very shrewd in his approach of different sorts of pains, and suggests, once again, that listening to the other actor in the painful dialogue is the only solution to lead the therapeutic process to success.

To offer the most complete vision of the friendly relationship between the patient and the practitioner, one cannot omit to mention cases where Celsus associates pain with the sense of touch. As in the Hippocratic³¹ and Galenic³² corpora, this sense at times helps apprehend pain. In *On Medicine*, such situations are met exclusively in the books on pharmacology and surgery.³³ They are identifiable thanks to the use of the verb *tango* and the noun *tactus*, which refer to the contact between the hand and one part of the ill body. Sensitivity to touching guides the diagnosis, as in the case of canker:

Proximus cancri metus est . . . Considerandum autem est, in quam partem cancer is tendat. Si ad colem, indurescit is locus et rubet et tactu dolorem excitat, testiculique intumescunt (7.27.1).

The nearest danger is canker . . . We must examine in what direction the canker is spreading. If to the penis, that part becomes hard and red and is painful to touch, and the testicles swell (trans. by Spencer).

Here, the observation of the ill body-part is complemented by a gesture (*tactu*), making the diagnosis easier. But there is no indication, in this text as in similar passages in *On Medicine*, that this gesture cannot be made by the patient himself. Besides, whereas in Hippocrates or Galen the recourse to the sense of touch often compensates for the patient's inability (either physical, mechanical or mental) to express his pain, one finds nothing similar in Celsus. Indeed, nothing precludes the patient saying to the one curing him the famous expression:

It hurts when I touch it!

Maybe one should consider the Celsian sense of touch as a sub-category of the painful dialogue, involving two main actors: on one side, the ill body, on the other, the hand—even if one cannot tell to whom it belongs.

30 On this, see Rufus of Ephesus *Medical Questions* 43: 'Ἐπει δὲ καὶ περιόδους τὰ πολλὰ ἔχουσιν οἱ πόνοι, καὶ τοῦτο ἐρωτητέον, "As pains most of the time also occur periodically, this too must be asked" (trans. is mine).

31 Villard (2006: 65).

32 E.g., the criticism of Archigenes by Galen in *De comp. med. sec. loc.* 1.1 (12.407.6 K.).

33 5.28.2a, 5.28.3a, 7.7.7a, 8.9.1a.

In the medicine between friends that Celsus describes in accordance with his *Preface*, one can read a crucial evolution in the history of medicine. Philippe Mudry underlines that “on voit apparaître chez les médecins romains, au 1^{er} siècle apr. J.-C., une sensibilité propre, absente de la médecine grecque antérieure, une sorte de pathétique médical qui constitue une page originale et nouvelle dans l’histoire de la civilisation et des mentalités,” before insisting on the “équivalence qui existe aux yeux de Celse entre la médecine et la miséricorde. Soigner, c’est exercer sa miséricorde.”³⁴ Even setting aside the possible influence of oriental religions on this progressive modification of medical ethics, we can talk not unduly of some “humanisation” of the medical art, to which, we believe, taking of pain into account participates.

The practitioner described in *On Medicine* appears more interested than his (Hippocratic) predecessors in “the other suffering” (*alter dolens*) of whom he is in charge. In Celsus’ work, the adjectives “bearable” (*tolerabilis*) and its negative “unbearable” (*intolerabilis*) evince a sharp attention paid to the threshold of tolerance of the patient, whether they qualify *dolor* itself or related terms like *malum* (3.23.7: “disease”) or *morbis* (4.13.1: “sickness”) or even a pathology like “cough” (*tussis*) to which pain is explicitly linked (4.13.1–2). Maybe the painful dialogue allows one to measure this highly subjective feeling.

The evolution of medicine toward a greater consideration for pain is also clear through the place of surgical pain in Celsus, whereas it is almost absent in Hippocratic texts.³⁵ The encyclopaedist asks for the “compassion” (*misericordia*) of the surgeon,³⁶ which is much needed in case of “torture” (*tormentum*). This word is almost always associated with pains caused by therapeutics itself, and Celsus, in a way, apologises for the suffering he will indirectly inflict to the patients. About a surgery for ingrowing eyelashes, he says:

Id primum fieri non potest, nisi in pilo longiore, cum fere breues eo loco nascantur; deinde si plures pili sunt, necesse est longum tormentum totiens acus traiecta (7.7.8d).

But in the first place this cannot be done unless the eyelash is rather long, and in this situation they are generally short; further, when numerous eyelashes are affected, the passing of a needle so many times is necessarily a prolonged torture (trans. by Spencer).

34 Mudry (2008: 408) (= Mudry [2006: 3]).

35 Jouanna (1992: 182) talks about “la discrétion du médecin [face à la douleur]” in the context of surgery.

36 7. *Praef.* 4.

This surgical act is presented as cruel but necessary (*necesse est*). In general, Celsus is keen to make patients undergo painful treatments if these have even the slightest chance of success.³⁷ Nothing sadistic though, and, if possible, he will naturally recommend a softer method.³⁸ The “compassion” (*miserericordia*) of the surgeon skilfully combines the care for “the other suffering” (*alter dolens*) and the will to cure him, whatever the cost.

In the case of chronic pains, the medical art has to acknowledge its incapacity to make pain disappear for good; even for acute pains, Celsus sometimes displays such recognition. Celsian medicine is indeed³⁹ humble towards pains it cannot cure but only alleviate, as witnessed by the use of verbs like *minuo* (“to reduce”) (3.10.2), *lenio* (“to alleviate”) (4.19.1 and 6.7.1d), and, above all, *leuo* (“to lessen”), the most frequent to have *dolor* as a complement.⁴⁰ Such distinctions are also to be found in Scribonius Largus’ *Book of Recipes* (*Compositiones*), where he mentions a cataplasm which “lessens pain immediately, takes it away within three days” (159: *impositum protinus leuat, triduo tollit dolorem*).⁴¹ Unable to cure its patients every time, medicine at the time of Celsus at least tries to provide them with the greatest relief.

If, in the *Hippocratic Corpus*, putting an end to the pain mostly equals putting an end to the related disease,⁴² in Celsus there seems to be a clear and constant distinction between disease therapeutics and pain therapeutics, as shown by the following passage from a chapter devoted to kidneys:

Auxilio quoque his exculceratis sunt, si adhuc ulcera purganda sunt . . . si uero dolor tantum leuandus est (4.17.2).

As an additional remedy when there is ulceration of the kidneys, if the ulcerations are still in need of being cleaned . . . but if it is merely pain which has to be relieved (trans. by Spencer).

The second paragraph of this chapter is built around the opposition (*si uero*, “but if”) between cure of the disease and cure of the pain, the latter being, in its modesty (*tantum*, “merely”), a goal as praiseworthy as complete recovery.⁴³

37 7.4.4c, 7.11.1.

38 8.4.17.

39 Contrarily to Rey (1993¹: 36).

40 E.g., 2.7.14, 4.2.8, 5.25.4b, 6.7.1c.

41 See also Scrib. Larg. 122.

42 Byl (1992: 204); Villard (2006).

43 See also 4.22.3 and 8.10.4.

Conclusion

In his approach of physical pain, Celsus is deeply indebted to the *Hippocratic Corpus*, from which, as far as we can judge, he clearly draws most of his material. Nevertheless, we believe that there is a clear adaptation of his sources to the Roman world and to his own vision of the medical art, considering in particular the specificities of the relationship between the practitioner and the patient as “friends” (*amici*). Establishing a “painful dialogue” requires “trust” (*fides*), at times long-range, and the merciful sensibility of the physicist toward “the other suffering” (*alter dolens*) facing him renders the medical art increasingly human—a medical art which, in the first century A.D., cares more and more for individuals.

Bibliography

- Barthes, R. (1972), “Sémiologie et médecine,” in: Bastide (ed.), 37–46.
- Bastide, R. (ed.) (1972), *Les sciences de la folie*, Paris/The Hague.
- Boehm, I. (2002), “Couleur et odeur chez Galien,” in: Villard (ed.), 77–96.
- /Luccioni, P. (eds.) (2003), *Les cinq sens dans la médecine d'époque impériale. Sources et développements* (Actes de la table ronde, 14 juin 2011, Université de Lyon 3), Lyon.
- Boudon, V. (2003), “Le rôle de la sensation dans la définition galénique de la maladie,” in: Boehm/Luccioni, 21–30.
- Byl, S. (1992), “Le traitement de la douleur dans le *Corpus hippocratique*,” in: López Férez (ed.), 203–213.
- Cocher, E. (1998), “Celse, Scribonius, Aurelianus et la douleur dentaire. Trois conceptions différentes,” *Chirurgien dentiste de France* 908, 68–73.
- Daremberg, Ch./Ruelle, Ch.É. (1879), *Œuvres de Rufus d'Éphèse*, Paris.
- Freyburger, G. (1986), “*Fides*.” *Étude sémantique et religieuse depuis les origines jusqu'à l'époque augustéenne*, Paris.
- Gauvain-Piquard, A./Meignier, M. (1993), *La douleur de l'enfant*, Paris.
- Guyard, H. (2009), *La plainte douloureuse*, Rennes.
- Jouanna, J. (1992), *Hippocrate*, Paris.
- Lain Entralgo, P. (1970), *The Therapy of the Word in Classical Antiquity*, New Haven/London.
- Lazorthes, Y. (1993), *Les douleurs rebelles. Évaluation et stratégies thérapeutiques*, Paris.
- López Férez, J.A. (ed.) (1992), *Tratados hipocráticos. Estudios acerca de su contenido, forma y influencia* (Actas del 7^e colloque international hippocratique, Madrid, 24–29 de septiembre de 1990), Madrid.

- Marchand, S. (2009), *Le phénomène de la douleur. Comprendre pour soigner*, Issy-les-Moulineaux.
- Mudry, Ph. (1980), “*Medicus amicus*. Un trait romain de la médecine antique,” *Gesnerus* 37, 17–20 (= Mudry [2006], 479–482).
- (1991), “Saisons et maladies. Essai sur la constitution d’une langue médicale à Rome (Étude comparée de passages parallèles de Celse (2.1.6–9) et d’Hippocrate (*Aphorismes* 3.20–23), in: Sabbah (ed.), 257–269 (= Mudry [2006], 363–373).
- (2006), “*Medicina, soror philosophiae*.” *Regards sur la littérature et les textes médicaux antiques (1975–2005)*, Maire, B. (ed.), Lausanne.
- (2008), “Du cœur à la miséricorde. Un parcours antique entre médecine et philologie,” in: van der Schueren (ed.), 405–415 (= Mudry [2006], 1–8).
- Prost, F./Wilgaux, J. (eds.) (2006), *Penser et représenter le corps dans l’Antiquité* (Actes du colloque international de Rennes, 1–4 septembre 2004), Rennes.
- Rey, R. (1993¹), *Histoire de la douleur*, Paris (2011³).
- Sabbah, G. (ed.) (1991), *Le latin médical. La constitution d’un langage scientifique. Réalités et langage de la médecine dans le monde romain* (Actes du 3^e colloque international “Textes médicaux latins antiques,” Saint-Étienne, 11–13 septembre 1989), Saint-Étienne.
- Spencer, W.G. (1935–1938), *Celsus. De Medicina*, Cambridge/London.
- van der Schueren, É. (ed.) (2008), *Une traversée des savoirs* (Mélanges offerts à Jackie Pigeaud), Québec.
- Villard, L. (2006), “Vocabulaire et représentation de la douleur dans la *Collection hippocratique*,” in: Prost/Wilgaux, 61–78.
- (ed.) (2002), *Couleurs et vision dans l’Antiquité classique*, Rouen.

PART 4

Pharmacology and Magic



The Pharmacological Treatise *Περὶ εὐφορβίου* of Juba II, King of Mauretania

Antoine Pietrobelli

Abstract

Some linguists explain the etymology of the botanical name *euphorbion* as deriving from the Greek verb *φέρβω* (“nourish, feed”). But according to Pliny this plant was discovered in the Atlas Mountains by Juba II, King of Mauretania, and named after his personal physician, Euphorbos. This paper aims to give credence to Pliny’s version. Indeed, Juba described the plant, its latex and its therapeutical applications in a now lost treatise *On Euphorbion* (*Περὶ εὐφορβίου*), which can be reconstructed through Greek and Latin testimonies. This treatise was the beginning of a long standing success. Juba and Euphorbos were living at the time when Greek medicine invaded the Roman world, and they are both representative of this cultural change.

The Greek botanical name *εὐφόρβιον*, which gave rise to the Latin *euphorbea* (*herba*), *euphorbeum* or *euphorbium*, the modern genus *euphorbia* and the French *euphorbe*, has been attributed with competing etymologies in both ancient and modern times. R. Strömberg¹ relates the noun to the verb *φέρβω*, “nourish, feed,” explaining the derivation through the adjective *εὐφορβος* meaning “well nourished,” because of the plant’s “characteristic thick latex.” The original *euphorbion* (spurge) would thus trace its name to the fact that it is a “succulent” plant, or “well nourished” with milky juice. The ancients, on the other hand, linked the plant name to the personal proper name *Εὐφορβος*,² which designated, according to Galen,³ the Trojan hero and son of Panthous,⁴

※ Translated by Beverly Maeder, subsequently revised by Jon Wilcox.

¹ See Strömberg (1940: 57), but also Casevitz (1993: 89) and Amigues (2003). Isidore of Seville links the name with its ability to improve eyesight (*εὖ* “well” + *φῶς* “light”); see Isid. *Orig.* 17.9.26 (Valastro Canale, vol. 2, p. 448, l. 3–4).

² On this point see Chantraine (1984: 1187) and André (1985: 99).

³ Gal. *De comp. med. sec. loc.* 9.4 (13.270 K).

⁴ On Euphorbos, see Wellmann (1907).

but according to Pliny the Elder,⁵ the Greek physician of Juba II, King of Mauretania. Pliny recounts that *euphorbion* was discovered by Juba during an expedition in the Atlas Mountains⁶ and that he gave it the name of his physician Euphorbos.

These three etymologies are plausible as the suffix *-ion* is frequently found in botanical names.⁷ It is Pliny's version, however, that I will support in this paper. There are three reasons for doing so. First of all, Pliny relates a discovery that is not very distant from him in time (*patrum nostrorum aetate* "in the time of our fathers") and corresponds to what we know otherwise about Juba's reign and his scientific interests. Secondly, botanists unanimously agree that the plant described by both Pliny and Juba matches a species endemic to the Moroccan Atlas, *euphorbia resinifera* Berg, or resin spurge.⁸ And finally, it is significant that the word *euphorbion* is totally absent from the treatises of the *Hippocratic Corpus* and from Theophrastus' *Research on Plants* (*Historia plantarum*), whereas the plant became an essential ingredient in the ancient and medieval pharmacopeia from the first century of our era.

The discovery and dissemination of this species took place at the juncture between Greek and Roman medicine. To start with, Juba II,⁹ son of King Juba I of Numidia, was taken to Rome after his father was defeated by Caesar in 46 B.C. He was raised in the imperial house of Augustus, probably by Octavia. In 25 B.C., Augustus named Juba king of Mauretania and, in order to ensure this position, married him to the daughter of Mark Antony and Cleopatra VII, the Ptolemaic princess Cleopatra Selene. The young couple established their court at Iol which was rebaptised Caesarea in honour of Augustus (Cherchell in present-day Algeria). The philhellene King Juba invited numerous Greek

5 See Plin. *Nat.* 25.77 (Jones, pp. 192–193): *Inuenit et patrum nostrorum aetate rex Iuba quam appellauit euphorbeam medici sui nomine* ("In the time of our fathers King Juba discovered the plant and named it *euphorbea* after his physician"). I have slightly modified W.H.S. Jones' and H. Rackham's translations of Pliny.

6 See Plin. *Nat.* 25.78 (Jones, p. 192): *Inuenit eam in monte Atlante* ("He discovered it in the Atlas Mountains").

7 See Chantraine (1979: 58).

8 The name of this species endemic to Morocco was assigned to it by Berg (1863: 4.34d). The plant grows at between 600 and 1500 m. on the foothills of the Atlas Mountains in the region of Beni Mellal. For a complete list of ancient botanical references see Stadler (1907).

9 On Juba II, I will refer only to Jacoby (1964) and Gsell (1972: 206–276), two more recent synthetic works by Coltelloni-Trannoy (1997) and Roller (2003), the brief synthesis produced by Camacho Rojo/Fuentes Gonz  les (2000), and an article on portraits of the sovereign by Landwehr (2007). I was not able to consult Roller (2004).

scholars and artists to Caesarea. Thus, although Juba had been raised in Rome, he married a Greek princess, created a court on a Hellenistic model and surrounded himself with Greeks. These included his personal physician, a Greek named Euphorbos. Euphorbos and his brother Antonius Musa were both disciples of Asclepiades of Bithynia, who contributed to introducing Greek medicine into Rome. Moreover, Juba II was a polymath king who wrote *in utraque lingua*. After discovering *euphorbion*, he wrote an opusculum on it in Greek, Περὶ εὐφορβίου (*On Euphorbion*), and, although it is now lost, it can be reconstructed in summary form from accounts in both Greek (Dioscorides, Galen) and Latin (Pliny). Finally, it is particularly interesting that *euphorbion* was rapidly adopted by Graeco-Roman pharmacology. In less than a hundred years following its discovery, *euphorbion* was mentioned by Pliny, then by Dioscorides of Anazarbus, Aretaeus of Cappadocia, Archigenes of Apamea, and Alexander of Tralles. A plant that had been discovered in the farthest western reaches of the Roman Empire, and even in a region beyond the *limes*, was thus being used for therapeutic purposes at the other end of the Empire. The case of *euphorbion*, which probably owed its success to Juba's little treatise, is a stunning example of the propagation of books and knowledge but also the commerce of simples in the Graeco-Roman world. It is nonetheless an unusual case, for the invention of *euphorbion* breaks the expected pattern whereby Roman medicine copied or adapted the Greek. In addition, the *euphorbion*, as a point of encounter or intersection between these two medical universes, can nuance our traditionally bipolar conception of Greece and Rome, since it was discovered on the margins of the Empire by a Punic-born king.

The Story of the Discovery

Pliny tells of the discovery of *euphorbion* in two passages of his *Natural History*, in the section dedicated to botany in Book 25 but also in one of the geographical descriptions belonging to the first books of his encyclopaedia, at the beginning of Book 5, when he evokes the Atlas Mountains.

In 25.78, he writes: "In the time of our fathers King Juba discovered the plant and named it *euphorbion* after his physician," and later, "He discovered it in the Atlas Mountains."¹⁰ In *Nat.* 5.16, he gives another version:

10 See n. 5 and 6 above.

Iuba Ptolomaei pater, qui primus utrique Mauretaniae imperitavit, studiorum claritate memorabilior etiam quam regno, similia prodidit de Atlante, praeterque gigni herbam ibi euphorbeam nomine, ab inuentore medico suo appellatam (Plin. *Nat.* 5.16).

Juba the father of Ptolemy, who was the first ruler to hold sway over both the Mauretaniae, and who is even more distinguished for his renown as a scholar than for his royal sovereignty, has published similar facts about Mount Atlas, and has stated in addition that a plant grows there called the euphorbia, named after his doctor who discovered it (trans. by Rackham, pp. 230–231).

Pliny thus names two different people as responsible for the discovery. In the first sequence of excerpts the discoverer is said to be Juba II,¹¹ the recognised scholar and author of the treatise *On Euphorbion*. In the second excerpt Pliny explains that it is Juba's physician, Euphorbos himself, who found the plant. This divergence can be explained, as I see it, by the difference in textual contexts. The first two sentences belong to a botanical and pharmacological description of *euphorbion* that is directly inspired by Juba's treatise. In this sequence Pliny attributes the discovery to the person who published it and who is the source of his own erudition. In the second excerpt, Pliny the naturalist describes the remote region of the Atlas and provides his reader with a geographical exploration of the mountains' curiosities. He incorporates greater detail into this writing of exploration by designating the true discoverer of the plant. In this context, the fact that Euphorbos was the first to identify the plant reinforces the legitimacy of its present name as well as Euphorbos' place in the nomenclature of plant species. However, it is even more important for my etymological demonstration to provide evidence that consolidates Pliny's information, as I will do below.

Juba the Explorer

Pliny considered the Atlas to be the most fabulous mountain chain of Africa. In order to reach it, Pliny says, an immense and unknown territory must be crossed:

11 See also Dsc. 2.82.1–3 and, after him, Oribas. 11.E.20.

E mediis hunc harenis in caelum attolli prodidere, asperum, squalentem qua uergat ad litora oceani, cui cognomen imposuit, eundem opacum nemorosumque et scatebris fontium riguum qua spectet Africam, fructibus omnium generum sponte ita subnascentibus, ut numquam satias uoluptatibus desit. Incolarum neminem interdiu cerni; silere omnia alio quam solitudinum horrore: subire tacitam religionem animos proprius accedentium praeterque horrorem elati super nubila atque in uicina lunaris circuli. Eundem noctibus micare crebris ignibus, Aegipanum Satyrorumque lasciuiam inpleri, tibiaram ac fistulae cantu tympanorumque et cymbalorum sonitu strepere. Haec celebrati auctores prodidere praeter Herculi et Perseo laborata ibi (Plin. *Nat.* 5.6–7).

It is reported to rise into the sky out of the middle of the sands, a rugged eminence covered with crags on the side facing towards the coast of the ocean to which it has given its name, but shaded by dense woods and watered by gushing springs on the side facing Africa, where fruits of all kinds spring up of their own accord with such luxuriance that pleasure never lacks satisfaction. It is said that in day-time none of its inhabitants are seen, and that all is silent with a terrifying silence like that of the desert, so that a speechless awe creeps into the hearts of those who approach it, and also a dread of the peak that soars above the clouds and reaches the neighbourhood of the moon's orb; also that at night this peak flashes with frequent fires and swarms with the wanton gambols of Goat-Pans and Satyrs, and echoes with the music of flutes and pipes and the sound of drums and cymbals. These stories have been published by celebrated authors, in addition to the labours performed in this region by Hercules and Perseus (trans. by Rackham, pp. 222–223).

Pliny's exposé is halfway between geography and mythology. He begins with a physical description and ends with the myth. We meet all the clichés of the ancients' imagination about the outer borders of the Empire: the horrors of the desert, monstrous creatures, and reminiscences of the exploits of the heroes. The unknown becomes the other, wild, inhuman, and it is retranscribed in the language of the *mythos*. Should we therefore consider Pliny's story about *euphorbion* as a pure fiction? The story, in any case, has the advantage of showing that at the moment Pliny was writing—he was born at approximately the same time that Juba died—the Romans still considered the Atlas as a quasi-unexplored territory. It also underscores the role Juba played in expanding the borders of the known world.

Juba (c. 50 B.C.–23/24 A.D.) was an explorer. When he was about twenty, building on works found in Roman libraries,¹² he wrote *The Wanderings of Hanno* ("Ἀνώνος πλάναι),¹³ a commentary on *The Voyage of Hanno*, the Carthaginian navigator who it seems sailed in the fifth century B.C. beyond the Pillars of Hercules and along the Atlantic coast of Africa, where he established Punic trading posts.¹⁴ When he became king, Juba himself set out on further expeditions to explore Africa. In this way he composed a monograph on his own kingdom, titled *History of Libya (Libyca)*,¹⁵ in which he brought together geographical and ethnographic information both from his readings and from his voyages. Pliny recounts that Juba led a mission into the Atlas to search for the sources of the Nile,¹⁶ and that during a sea voyage it was Juba who gave the Canary Islands their names for its population of large dogs, of which he brought back two specimens.¹⁷ Some years later, in 1 A.D., Augustus sent Juba II on an expedition to the Orient with Gaius Caesar, the emperor's grandson,¹⁸ accompanied by an armed contingent as well as a number of scholars like the geographer Isidore of Charax and King Archelaus of Cappadocia. This expedition into Nabataean territory as far as the Arabian Gulf resulted

12 We know that he had access to his grandfather Hiempsal's *Libri Punici* and suppose that these *Punic Books*, which contained *The Voyage of Hanno*, were Juba's main source; see Amm. 22.15.8; Sol. 32.2; Matthews (1972: 331–334); Desanges (1978: 60–62); and Roller (2003: 159).

13 On this lost work, see Ath. 3.83c; Hsch. (s.u. λιβυφοίτην); Desanges (1978: 60–62); and Roller (2003: 177).

14 Hanno left Carthage with a fleet of sixty fifty-oar vessels that transported around thirty thousand men and women. The Greek version of *The Voyage of Hanno*, translated in the third or second century B.C. from a Punic inscription engraved on the temple of Baal at Carthage, has been transmitted in the manuscript *Palat. gr.* 398 (ninth–tenth centuries). For an edition, French translation and textual commentary, see Desanges (1978: 39–85 and 392–397). The date of this maritime exploration as well as its ultimate destination (Cameroon, Sierra Leone?) are objects of intense debate.

15 On this work composed of at least three books, see Roller (2003: 183–211).

16 Pliny (*Nat.* 5.51–53) presents Juba's theory according to which the Nile had its source in the Atlas not far from the ocean and soon after became a stagnant lake named Nilides. Pliny's encyclopaedia recounts that Juba brought back a crocodile to prove his thesis (Lake Nilides could be part of the Nile because the two were inhabited by the same reptiles). He placed the living animal as a votive offering in the temple of Isis at Caesarea. During Pliny's lifetime the crocodile could still be seen. Juba seems to have adopted the thesis of Euthymenes of Marseille who, in the sixth century B.C., claimed that the Nile flowed from the ocean. On Juba's theory see also Vitruvius 8.2.7 and Amm. 22.15.8.

17 Plin. *Nat.* 6.204.

18 On this expedition see Roller (2003: 212–226).

in another work, *On Arabia*,¹⁹ which Juba wrote in 2–5 A.D. and dedicated to Gaius Caesar. The purpose of voyages of this kind was as much political and military as scientific. The expeditions pursued cartographic work, inventoried zoological species, collected plant species, and described the customs of the various populations met in these regions. The constitution of the Roman Empire and the expansion of its borders were accompanied by the creation of an inventory of the new world and its wonders in the form of an encyclopaedic literature. Juba's life and scientific interests would thus seem to at least fit in with what Pliny says of the discovery of the *euphorbion*. There are, moreover, a few details in the life of the physician Euphorbos that go in the same direction.

Euphorbus and Antonius Musa

We know nothing of the physician Euphorbos beyond what Pliny tells us of the botanical discovery:

Inuenit... rex Iuba quam appellauit euphorbeam medici sui nomine. Frater is fuit Musae, a quo diuum Augustum conseruatum indicauimus. Iidem fratres instituere a balineis frigida multa corpora adstringere. Antea non erat mos nisi calida tantum lauari, sicut apud Homerum etiam inuenimus (Plin. *Nat.* 25.77).

King Juba discovered a plant to which he gave the name euphorbea, calling it after his own physician. This man was the brother of the Musa we have mentioned as the saviour of the life of the late Emperor Augustus. It was these brothers who first adopted the plan of bracing the body by copious douches of cold water after bath. Before this the custom was to bathe in hot water only, as we find that it is also in Homer (trans. by Jones, pp. 192–193).

Pliny informs us here that Euphorbos was the brother of Antonius Musa,²⁰ Augustus' illustrious physician. The fate of the better known Musa can elucidate that of his little known brother. A first problem relates to the names of the two brothers, one Greek, one Roman.²¹ The *nomen gentile* Antonius

19 On this book see Roller (2003: 227–243).

20 On Antonius Musa, see Wellmann (1894); Sabbah (1984); Michler (1993); and Samama (2003: 292, n° 169).

21 On this question see Michler (1993: 760) and Roller (2003: 159–160).

has been explained by their social status: the two brothers were emancipated Greek slaves,²² and the name *gens antonia* probably comes from the fact that they were emancipated by Mark Antony. They entered Augustus' house through Antony's wife Octavia or through Antony's daughter.²³ In any case they belonged to the imperial household. It is likely that Euphorbos then left Rome, without his brother, in 25 B.C. and followed Juba and Cleopatra Selene to their court in Mauretania.

Pliny also says the two physicians were responsible for introducing the use of cold water baths to tighten up the body into Roman practices.²⁴ From his remark linking a therapeutic prescription and its expected physiological result, we can easily infer that the brothers practiced Methodist medicine. Moreover, Pliny confirms Eurphorbos' and Musa's membership in the Methodist school when he describes the history of the school:

Mutata et quam postea Asclepiades, ut rettulimus, inuenerat. Auditor eius Themison fuit, seque inter initia adscripsit illi, mox procedente uita sua et placita mutauit, sed et illa Antonius Musa eiusdem auditor auctoritate diui Augusti, quem contraria medicina graui periculo exemerat (Plin. *Nat.* 29.6).

And that sect also was changed that afterwards had been founded, as I have related, by Asclepiades. He had a pupil called Themison, who at first followed his master, but then later in life he also changed his tenets, a further change being made by Antonius Musa, another pupil of Asclepiades, with the support of the late Emperor Augustus, whose life in a dangerous illness he had saved by reversing the treatment (trans. by Jones, p. 187).

The two Greek freedmen were therefore, more or less directly, followers of Asclepiades,²⁵ although we do not actually know whether they were in contact with him. Perhaps they knew his precepts from books or from contact with

22 Cf. D.C. 53.30.3: ἀπελεύθερος γάρ ἦν "for he was a freedman."

23 This is the explanation given by Roller (2003: 160). It has been accepted for a long time that the brothers did not belong to the *gens Pomponia*; see Ackermann (1786: 10).

24 On this point see Spalikowski (1896) and Michler (1993: 769–764).

25 On Asclepiades of Bithynia, see Benedum (1967); Harig (1983); Vallance (1993); Pigeaud (1993); and Polito (1999).

Themison of Laodicea? In any case they all prescribed cold bath treatments. Pliny recalls that Asclepiades was nicknamed “cold-water giver” (*frigida danda praeferens*),²⁶ and Caelius Aurelianus says that Asclepiades advocated using cold water not only for drinking but for baths. Caelius tells us that the prescription of cold water baths was called *psychrolusia*:

[Asclepiades] laudat etiam in *Salutaribus praeceptis* uitae uarietatem, atque uehementer utile dicit aquam bibere et frigida lauari, quam psychrolusiam appellant, et frigidam bibere (Cael. Aur. *Acut.* 1.14.111 [Benz/Pape, p. 84, l. 24–26]).

In his *Rules of Health* he [Asclepiades] praises living a varied life and explains that it is very helpful to drink water, take cold baths which they call psychrolusia, and drink cold water (trans. is mine).

Dio Cassius used the same term for the therapy prescribed by Antonius Musa:

Αὐτὸν (τὸν Αὐγούστον)... Ἀντώνιος τις Μούσας καὶ ψυχρολουσίαις καὶ ψυχροποσίαις ἀνέσωσε (D.C. 53.30.3).

A certain Antonius Musa saved him [Augustus] by means of cold baths and cold potions (trans. by Cary, pp. 270–271, slightly modified).

If Pliny attributes the introduction of cold baths to the two brothers and not to their predecessor, it is probably because of the prestige of Antonius Musa's main patient, Augustus. Indeed, we know that, in 23 B.C., Antonius Musa saved Augustus' life by prescribing *psychrolusia* when he was suffering from a serious illness.²⁷ Musa then became the Emperor's official physician, received a large amount of money, and was given the great honour of wearing the gold ring, in spite of being a freedman. He counted Agrippa, Maecenas, and Horace among

²⁶ Plin. *Nat.* 26.14 (Jones, p. 274).

²⁷ On this episode in Augustus' life, see D.C. 53.30; Suet. *Aug.* 59 et 81; Plin. *Nat.* 29.6; Dubois (1869); and Marasco (1998: 270–273).

his patients,²⁸ and the use of cold baths spread among Roman society on the basis of Augustus' cure.²⁹

The cure was probably also due to lettuce being prescribed.³⁰ It seems that Antonius Musa was very interested in pharmacopeia, as can be seen with the number of later pharmacological treatises that were erroneously attributed to him.³¹ Galen³² mentions that he wrote books on pharmacology and numerous writers after him cite his plant preparations.³³ M. Michler³⁴ has used Dioscorides and Theodorus Priscianus to show that the ancients considered lettuce to be slightly cooling and effective in treating stomach problems and dyspepsia. We also know from Pliny³⁵ that Augustus wrote in his correspondence that he had been cured by ingesting bitter vetch, reputed to have a warming function. The prescription of warming and cooling remedies recalls the use of cold and hot baths by Asclepiades, and then by practitioners of Methodism, for relaxing or tightening the body. It shows above all that Antonius Musa was a real pharmacologist. The interest that Euphorbos had in botany and his discovery of a new species and its therapeutic applications seem to fit with what we know about Musa. Before describing the pharmacological treatise *On Euphorbion*, however, it is necessary to say more about its author, King Juba II of Mauretania.

28 Cf. Hor. *Epist.* 1.15.2–5 (Fairclough, p. 344–345): *Nam mihi Baias Musa superuacuas Antonius, et tamen illis / me facit inuisum, gelida cum perluor unda / per medium frigus* ("For Antonius Musa makes Baiae useless to me, and yet puts me in ill favour there, now that in midwinter I drench myself in cold water," trans. by Fairclough). On the influence of Musa's medical theories on Horace, see Michler (1993: 777).

29 The adoption of the *frigidarium* in Roman *thermae* can be linked with this mode of applying cold baths. Thébert (2003: 93–95) suggests, however, that the architectural phenomenon should not be attributed simply to Augustus' cure. Rather the invention of the *frigidarium* should be considered as more broadly related to the reputation of the Greek physician Asclepiades and his influence upon the new medical conception of the body that took hold in Rome.

30 Cf. Plin. *Nat.* 19.128.

31 On this question see Sabbah/Corsetti/Fischer (1987: 36–37).

32 Gal. *De comp. med. per gen.* 2.1 (13.463 K.).

33 Guy Sabbah provides a repertory of Musa's medicinal preparations as cited by Greek and Latin authors. See Sabbah (1984).

34 Michler (1993: 769–770).

35 Plin. *Nat.* 18.139.

Juba the Philhellene

The ancients unanimously considered Juba to be “the most erudite of kings” in the words of Lucius Ampelius,³⁶ “a great polymath” according to Athenaeus.³⁷ Plutarch speaks of him as “of all kings the most devoted to historical enquiry”³⁸ and places him “among the most erudite of the Greek writers.”³⁹ Pliny piles on praise with “who is even more distinguished for his renown as a scholar than for his royal sovereignty,”⁴⁰ and even Tertulian considers him as one of the greatest pre-Christian kings.⁴¹

None of Juba's books have been preserved in their entirety. Only fragments assembled by Müller⁴² and then Jacoby give us an overview of his impressive production. His early works, consisting of at least twenty-six books written in Greek at Rome between 30 and 25 B.C.,⁴³ show the young Juba to have a polymath and encyclopaedic mind. They reveal a great personal culture as well as participation in the preoccupations of contemporary Roman intellectual life. Juba wrote a *Roman Archaeology* in at least two books, for example,⁴⁴ that denotes a taste for antiquarian studies typical of the Augustan period,⁴⁵ which was marked by a passion for Roman history and antiquities. In the same vein, Juba composed a voluminous work of at least fifteen books titled *Resemblances* (Ὁμοιότητες).⁴⁶ In this lexicographical and linguistic treatise Juba compares Greek and Latin words and Greek and Latin things in order to demonstrate that, generally speaking, Latin words and things have a Greek origin. During the Augustan period, indeed, Roman culture invented its own grandeur by modelling itself on Greece. Juba shared the tendencies of a Varro, Dionysius of Halicarnassus, or Livy. During his youth in Rome, Juba also wrote a treatise

36 Ampel. 38.1.2: *rex litteratissimus*.

37 Ath. 3.25: ἄνδρα πολυμαθέστατον.

38 Plu. *Sert.* 9.5: τοῦ πάντων ἱστορικωτάτου βασιλέων.

39 Plu. *Caes.* 55.2: Ἑλλήνων τοῖς πολυμαθεστάτοις ἐναρίθμιος γένεσθαι συγγραφεῦσι.

40 Plin. *Nat.* 5.16: *studiorum claritate memorabilior etiam quam regno*; see p. 160 above.

41 Tert. *Apol.* 19.6.

42 Müller (1883: 469–484).

43 For a chronology of the bibliography on Juba, see Roller (2003: 261–263).

44 On this Ῥωμαϊκὴ ἱστορία or ἀρχαιολογία, see Jacoby (1964: 133) and Roller (2003: 166–170).

45 On this point see Rawson (1985: 233–249).

46 See Jacoby (1964: 134) and Roller (2003: 170–173).

On Painting (Περὶ ζωγράφων or Περὶ ζωγραφικῆς)⁴⁷ and another *Theatrical History* (Θεατρικὴ ἱστορία),⁴⁸ in which he provides, as far as we know, a catalogue of musical instruments invented in different countries and discusses Greek and Persian dances.

The young man's curiosity and impressive production are probably linked with his education.⁴⁹ He received the very best education the *Vrbs* could provide in this period. He arrived in Rome in 46 B.C. Numerous Greek scholars were settled there during these years. Alexander of Milet, better known as Alexander polyhistor, was in Rome since 82 B.C. and spent the last years of his life in the house of Octavian. As his nickname indicates, this Greek scholar was interested in numerous fields of knowledge. He wrote *Successions of Philosophers* (Φιλοσόφων διαδοχαί), a treatise *On the Delphic Oracle* (Περὶ τοῦ ἐν Δελφοῖς χρηστηρίου), books of literary criticism on the lyric poems of Alcman and Corinna, as well as books on the ethnography of the Graeco-Roman world, from Italy to India. Other scholars also belonged to the house of Augustus: the philosopher and historian Athenodorus of Tarsus,⁵⁰ another voyager who described the extremities of the world; Timagenes of Alexandria, who entered the house of Octavian around 30 B.C. and who was also a historian and a geographer describing the limits of the earth. On the strictly Roman side, the influence of Varro and Asinius Pollio are visible in Juba's occupations. Like Juba, such authors are representative of the polymath writers who were active at the end of the Hellenistic period. In Rome, Juba benefitted from the extraordinary cultural environment that prevailed there during the Augustan period.

As King of Mauretania, Juba surrounded himself with numerous Greek *literati* and artists.⁵¹ At Caesarea he employed not only his physician Euphorbos, but also the tragic actor Leontus of Argos,⁵² a student of Athenion's. Juba quotes a passage on cooking from Athenion's comedy *The Samothracians*.

47 This work comprised at least eight books. They contained, for instance, biographies of painters such as Parrhasius of Ephesus or Polygnotus of Thasos; see Jacoby (1964: 135) and Roller (2003: 173–174).

48 This work contained at least seventeen books; see Jacoby (1964: 134) and Roller (2003: 174–177).

49 On Juba's education, see Roller (2003: 59–75).

50 On Athenodorus of Tarsus, see Grimal (1945; 1946).

51 Desanges (1984–1985) has shown that the philhellenistic tradition was already existent under the Numidian kings who were Juba's ancestors, but that it became particularly important at Juba's court in Caesarea.

52 Cf. Ath. 8.343e.

We also are acquainted with Juba's predilection for the theatre and spectacles through inscriptions that mention actors and actresses and their dressers.⁵³ Moreover the theatre in Caesarea was built during Juba's reign, between 25 and 15 B.C.⁵⁴ Another artist at the royal court was the gem-cutter Gnaios,⁵⁵ a member of Cleopatra Selene's suite who had worked for her father at Alexandria. He crafted intaglios of Diomedes and Heracles as well as coins for Juba. It is possible that Crinagoras of Mytilene, who celebrated Juba and Cleopatra's marriage in an epigram that has been preserved,⁵⁶ accompanied the couple to Caesarea when they were fiancés or newly-weds. Juba also created a library containing numerous Greek works. It is said that swindlers exploited his great passion for books and sold him fake manuscripts supposedly by Pythagoras.⁵⁷

On the other hand, Juba's cultural attachments were not only Greek. He was Numidian by birth, Roman by his education and his loyalty to Augustus, and Egyptian by marriage. The coins minted with his effigy illustrate these various influences perfectly. The model of the royal couple derives from the Augustan Roman one while retaining symbols of its Numidian and Ptolemaic heritages. Several coins⁵⁸ show a Capricorn or Saturn, signs of Augustus and his new era, whereas others bear the symbols of Egypt such as Isis or crocodiles. Africa is also present in the elephants represented on many coins.

The array of influences meeting in Juba's erudition and his court's culture also seems to reflect itself in the interpretations that can be made of his pharmacological treatise *On Euphorbion* (Περὶ εὐφορβίου), at least so far as we can reconstruct it.

Juba II's Treatise *On Euphorbion*

Juba's treatise can be reconstructed on the basis of two main sources, Dioscorides and Pliny, but also on the basis of a few elements gleaned in Galen. The following table presents the various passages that can be put into parallel.

53 Voir *CIL* 6.10110 et 8.9428.

54 On this point see Picard (1975); Golvin/Leveau (1979).

55 On the gem-cutter Gnaios, see Vollenweider (1966: 45–46).

56 *Anth. Pal.* 9.235; on this epigram, see Braund (1984).

57 Elias *In Arist. cat. com.* (Busse, p. 128).

58 See Coltelloni-Trannoy (1997: 166–186) and Roller (2003: 151–155); on the coins representing Cleopatra Selene, see Grenier (2001).

TABLE 1

	Dioscorides	Pliny	Galen
	<i>De materia medica</i> 3.82.1–3 (2.98–99 Wellmann = Beck, pp. 220–221, trans. by Beck, slightly modified)	a) <i>Nat.</i> 25.77–79 (Jones, pp. 192–193, ed. and trans.) b) <i>Nat.</i> 5.16 (Rackham, pp. 230–231, ed. and trans.) c) <i>Nat.</i> 25.143 (Jones, pp. 236–237, ed. and trans.)	<i>De comp. med. sec. loc.</i> 9.4 (13.270–271 K., trans. are mine)
The book		a) Sed Iubae uolumen quoque extat de ea herba et clarum praeconium. a) “But the treatise also of Juba on this plant is still extant, and it makes a splendid testimonial.” b) priuatum dicato uolumine. b) “in a volume dedicated solely to the subject of this plant.”	Καὶ γέγραπται περὶ αὐτοῦ βιβλιδιὸν τι σμικρὸν Ἰόβα τῷ βασιλεύσαντι τῶν Μαυρούσιων. “A tiny small book has been written about it by Juba, King of Mauretania.”
Description of <i>euphorbion</i>	δένδρον ἐστὶ ναρθηκοειδὲς Λιβυκόν, γεννώμενον ἐν τῇ κατὰ Μαυρουσιᾶδα Αὐτολολίᾳ, “it is a Lybian tree that resembles to a ferule, growing in Autololia next to Mauretania,	a) Inuenit eam in monte Atlante, specie thyrsi, foliis acanthinis. “He discovered it on Mount Atlas; it has the appearance of a thyrus and the leaves of the acanthus (?)”	φυτοῦ τίνος ἀκανθώδους ἐν τῇ τῶν Μαυρουσίων γῇ φυομένου. “of a plant covered by thorns which grows on the land of the Mauretanians.”

	ὁποῦ μεστὸν δριμυτάτου, ὃν δεδοικότες οἱ τῇδε ἄνθρωποι συλλέγουσι διὰ τὸ ἐπιτετάμενον τῆς πυρώσεως· κοιλίας γοῦν προβατείας πεπλυμένας περιδήσαντες τῷ δένδρῳ μακρόθεν ἄκοντίοις διαιροῦσι τὸν καυλόν· εὐθέως δὲ ὥς ἔκ τινος ἀγγείου πολὺς ἀποχεῖται ὁπὸς εἰς τὰς κοιλίας, καὶ ἀπορραίνεται δὲ εἰς τὴν γῆν ἐξακοντιζόμενος.”	a) Vis tanta est ut e longinquo succus excipiat incisa conto; subitur excipulis uentriculo haedino. “Its potency is so great that the juice, obtained by incision with a pole, is gathered from a distance; it is caught in receivers made of kids’ stomachs placed underneath.”	Μήλων δέ, τουτέστι προβάτων, ἐν τῇ γαστρὶ διασώζεσθαι φησι τὸ εὐφόρβιον, ὅτι μόνην ταύτην οὐ διαβιβρώσκει, καὶ διὰ τοῦτο δυνατὸν ἐστὶν ἀποτιθεσθαι κατ’ αὐτὴν τὸ φάρμακον. “The <i>euphorbion</i> juice is said to be caught in cattle, that is to say sheep, stomachs, because it is the only material that it does not corrode. That is why the remedy can be put in it.”
Latex extraction	“[This plant is] full of a very pungent juice, which, because of the intensity of its heat, the inhabitants there collect with much trepidation. Therefore, after tying on the plant sheep stomachs, they sever the stalk with javelins from a distance; right away a great deal of juice pours into the stomachs, as if from some sort of a vessel; as it darts forth, it also gushes on the ground.”		

TABLE 1 (Cont.)

Latex	ἔστι δὲ δύο γένη τοῦ ὀποῦ· τὸ μὲν τι διαυγές ὡς σαρκοκόλλα, κατὰ μέγεθος ὀρόβων, τὸ δέ τι ἐν ταῖς κοιλίαις ξυσματῶδες καὶ συνεστός. Δολοῦται δὲ καὶ σαρκοκόλλη καὶ κόμμει μειγνυμένοις· ἐκλέγου δὲ τὸν διαυγῆ καὶ δριμύν. Δυσδοκίμαστος δὲ ἔστι τῇ γεύσει λαμβανόμενος διὰ τὸ ἄπαξ δηχθείσης τῆς γλώσσης ἐπιμένειν τὴν πύρωσιν ἐφ’ ἱκανὸν χρόνον, ὥστε πᾶν τὸ προσαγόμενον εὐφόρβιον δοκεῖν εἶναι. “There are two kinds of this juice: one is clear like sarcocolla, about the size of bitter vetches, and the other, which is in the stomachs, is full of particles and firm. It is adulterated both with sarcocolla and with gum mixed with it. Choose that which is clear and pungent. It is hard to test it by tasting it, because once it has stung the tongue, its burning sensation lasts for a long time, so that everything that is put to the tongue seems to be spurge.”	a) Vmor lactis uidetur defluere; siccatus cum coit, turis effigiem habet. “Fluid and like milk as it drops down, when it has dried and congealed it has all the features of frankincense. ... Gaetuli qui legunt taedio lacte adulterant, sed discernitur igni; id enim quod sincerum non est fastidiendum odorem habet. ... Fractus hammoniaci similis est, etiam leui gustu os accensum diu detinens et magis ex interuallo, donec fauces quoque siccet. ... The Getulians who gather the juice adulterate it out of weary disgust by adding milk, but fire is a test of genuineness, for that which is adulterated emits a nauseating smell. ... Broken it resembles hammoniacum, and even a slight taste leaves for a long time a burning sensation in the mouth; after a while this increases until it dries up even the throat.	ὁπὸς δέ ἐστι... θερμότατος τῇ δυνάμει. “The juice has a warming faculty.”
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Δύναμιν δὲ ἔχει ὁ ὀπὸς
 διαφορητικὴν ὑποχυμάτων
 ἐγχριόμενος· πυροῖ μέντοι δι'
 ὅλην τῆς ἡμέρας, ὅθεν μέλιτι
 μίγνυται καὶ κολλυρίοις κατ'
 ἀναλογία τῆς δριμύτητος·
 ἀρμόζει καὶ ἰσχίων ἀλγήμασι
 μίγεις ἀρωματικῶ ποτήματι
 καὶ πινόμενος· ἀφίστησι δὲ καὶ
 λεπίδας αὐθιμερόν· δεῖ μέντοι
 χρωμένους ἀσφαλίζεσθαι τὴν
 περικειμένην τοῖς ὀστοῖς σάρκα
 μοτοῖς ἢ κηρωτῇ. Ἰστοροῦσι δὲ
 τινες μὴδὲν παρακολουθεῖν
 δυσχερὲς τοῖς ἐρπετοδῆκτοις,
 ἐάν τις ἐγκόψας αὐτῶν ἄχρι
 ὅστέου τὸ δέρμα τῆς κεφαλῆς
 ἐνθῇ τὸν ὀπὸν λεῖον καὶ ῥάψῃ.

Therapeutic uses "Smeared on, the juice has the property of **dispersing cataracts**, but it surely burns all day long. It is for this reason that it is mixed with honey and with eye salves in proportion to its sharpness. It is suitable for diseases of the hips when mixed with an aromatic potion and drunk. It also quickly removes spurs. Users must secure, however, the flesh that surrounds the bones with lint pladgets or with cerate. Some say that **after cutting the skin on the head to the bone**, inserting smooth juice into the wound, and sowing up the wound, no harm will befall those **whom serpents bite**."

- c) **Facit claritatem et euphorbeum inunctis.**
- c) "Euphorbeum too **improves the vision of those whose eyes are anointed with it.**"
- a) **Qui colligunt clarius uident. Contra serpentes medetur quacumque parte percussa uertice inciso et medicamento addito ibi.**
- a) "The collectors find their vision improved. It is employed as treatment for snake-bite. In whatever part of the body the bite may be, an incision is made in the top of the skull and the medicament inserted there."
- b) **Cuius lacteum sucum miris laudibus celebrat in claritate uisus contraque serpentes et uenena omnia.**
- b) "He sings the praises of its milky juice in very remarkable terms, stating it to be an aid to clear sight and an antidote against snake-bite and poisons of all kinds."

When F. Jacoby⁵⁹ edited the fragments of Juba's work he hypothesised that *On Euphorbion* (Περὶ εὐφορβίου)⁶⁰ was actually a section or chapter of the *Libyca*. This hypothesis gives no credence to either Pliny nor Galen, for Pliny writes of a volume "apart" (*priuatim*) dedicated to *euphorbion*, and Galen mentions a "tiny small book" (βιβλίδιον τι μικρόν) on the subject. Galen's pleonasm is interesting for our archaeological perspective. The treatise has indeed been lost, and I can only try to use the points of intersection among the sources to reconstitute its general outline. However, since Dioscorides' and Pliny's remarks are rather brief, as can be seen in the table where they are given practically *in extenso*, and since Juba's treatise was also very short,⁶¹ as Galen says, the reduced forms we find in Dioscorides' and Pliny's summaries must give a fairly faithful image of the original.

Pliny says that Juba's main point was to praise the new plant, in particular because of its therapeutic virtues. The two indirect traditions we have, through Pliny and Dioscorides, follow the same order in presenting the treatise and thus allow us to retrace the main moments of Juba's opusculum: a botanical description of *euphorbion*; the process for extracting the sap or latex; a description of the latex intended for physicians and buyers; therapeutic applications. The words appearing in bold print in the table indicate the points the Latin and Greek sources have in common. On the twin hypotheses that Dioscorides does not depend on Pliny but refers directly to Juba's treatise, and that the two testimonies are thus independent of each other, the points in common appear to me to be directly drawn from Juba's opusculum. Let us look at them in greater detail:

1. All three indirect sources state that *euphorbion* is a species endemic to Mauretania, with Dioscorides and Pliny mentioning Autololia or the Atlas Mountains respectively.
2. As for the plant's characteristics, Dioscorides says it is shaped like a ferule, which is close to Pliny's image of a thyrus. Galen gives the term

59 Jacoby (1964: 329), after Susemihl (1892: 412).

60 This title is not actually attested in the sources, but specialists on Juba agree on this name, with the exception however of the variant cited by Müller (1883: 473, fr. 27), drawn from the Galenic manuscript tradition, which gives Περὶ ὀποῦ (*On Juice*) as the title.

61 Detlefsen (1909: 164–165) followed then by Pédech (1955: 325–327, 332) suggested the hypothesis that *On Euphorbion* was the only work of Juba's to which Pliny had direct access, but this is not convincing. The two authors deduce that the treatise contained more than the description of the plant and also gave other information on the zoology and geography of the Atlas. Accounts left by Dioscorides, Pliny, and Galen do not seem to go in this direction however.

ἀκανθώδους and Pliny *acanthinis*, which W.H.S. Jones translates as “the leaves of the acanthus,” which seems wrong to me. The Latin *acanthinis* is in my opinion a direct borrowing from the Greek on Pliny’s part, and Galen’s adjective ἀκανθώδους refers rather to the fact that the plant is covered with thorns since it is a cactus.⁶²

3. Both Pliny and Dioscorides describe the latex extraction. Because the sap is very toxic and highly caustic, it is harvested from a distance (*e longinquo* / μακρόθεν). Sheep stomachs (*uentriculo haedino* / κοιλίας προβατείας) are hung around the plant and javelins are used to incise it (*incisa conto* / ἀκοντίοις διαιρούσι), so that the latex will run into the animal gut.⁶³
4. Another element that Pliny and Dioscorides have in common is that they warn against falsifications of *euphorbion* sap.⁶⁴ Dioscorides says that it is adulterated by adding *sarcocolla* and gum. Pliny says that this is done with milk.
5. Both authors also mention the long-lasting burning sensation in the mouth that comes from tasting the latex.
6. And finally, in both the Greek and Latin versions we find the same therapeutic applications: unctions for curing cataracts and improving eyesight, or a technique for treating snake bites by introducing *euphorbion* sap into an incision made in the head.

Since both invoke the authority of Juba, Pliny at the beginning of his entry on *euphorbion*, and Dioscorides at the end, I am led to consider their common points as data or even particular Greek words that originally figured in the King of Mauretania’s treatise. Pliny and Dioscorides were contemporaries and it seems reasonable that they had sources in common without being mutually influenced.⁶⁵ In this regard, there is another common fact about *euphorbion* that both authors mention. Pliny’s description includes a reference to another substance that can be substituted for *euphorbion* even though it is inferior—the sap of *chamelaea*, a plant found in Gaul:

62 The adjective ἀκανθώδους signifies “covered with thorns, thorny”; cf. Chantraine (1984: 45).

63 It should be noted that botanical taxonomy, which has moreover been profoundly modified today by biochemistry and genetics, followed particular laws in antiquity. What interested people at that time was more the latex produced by this *euphorbion*, which was to be used therapeutically, rather than the appearance of the plant itself. On this manner of linking it with other latex-producing plants as a means of classifying species, see Scarborough (1989: 278–279), reproduced in Scarborough (2010: 12.278–279).

64 On the common practices of falsification, see Schmidt (1979: 114–125).

65 On this point see Wellmann (1889).

Multum infra hunc sucum est qui in Gallia fit ex herba chamelaeae granum cocci ferente. (Plin. *Nat.* 25.79)

Far inferior than this juice is that which in Gaul comes from the *chamelaeae*⁶⁶ which bears a red berry (trans. by Jones, p. 193, slightly modified).

This resembles to a certain extent what Dioscorides contains in his preface, where he relates the information to a certain Niger:⁶⁷

Ὁ γοῦν διαπρεπὴς δοκῶν εἶναι ἐν αὐτοῖς Νίγερ τὸ Εὐφόρβιον φησιν ὅπὼν εἶναι χαμελαίας γεννωμένης ἐν Ἰταλίᾳ. (Dsc. *praef.* 3 [Wellmann, p. 2])

For example, Niger, who is considered prominent among the pharmacologists, supposes that the juice of the *euphorbion* is the juice of the *chamelaeae* which grows in Italy (trans. is mine).

The reputed pharmacologist is Sextius Niger, also a follower of Asclepiades. His Greek language Περί ὕλης (*De materia [medica]*, *On [Medical] Substances*) inspired Dioscorides. In reality it provides information about a substitute for *euphorbion* that is more readily found in Italy (or in Gaul). This Sextius Niger thus seems to be an intermediary between Juba and our two sources, at least as regards this ersatz for *euphorbion*. Niger knew Juba's treatise, since he mentions *euphorbion*. And as for Pliny and Dioscorides, they knew both Juba's and Niger's work.

To finish on this treatise I would like to return to the paternity of the botanical and medical discovery. M. Michler⁶⁸ has noted that among later Greek and Latin physicians the new substance entered into the composition of many medicines for preserving or activating bodily heat and thus re-establishing the body's balance. He relates this use with the practice of hot baths. Michler thus perceives the influence of Methodist medicine, and even Euphorbos' science, on Juba's treatise. It seems to me, however, that neither Euphorbos nor Juba were the first to discover the *euphorbion*. It is entirely likely that it

66 *Chamelaeae* (χαμελαία, "spurge-flax") is a poisonous evergreen shrub, commonly called Flax-leaved Daphne, ("garou" or "sainbois" in French), species name *Daphne gnidium* L. Its red berries were called "Cnidian berries" (κόκκος Κνίδιος).

67 On Dioscorides see Wellmann (1889), in particular p. 535–537 on *euphorbion* and *chamelaeae*.

68 Michler (1993: 763).

was already in use among native populations, “the inhabitants there” (οἱ τῇδε ἄνθρωποι), says Dioscorides, “the Getulians” (*Gaetuli*) according to Pliny. Juba takes note of a technique for extracting *euphorbion* sap that is already well established and reflects a knowledge and experience of its toxic effects. Similarly, the therapeutic applications of *euphorbion* known at the time Juba wrote his treatise were undoubtedly the result of the local population’s empirical research and the traditional medicine practised in the Atlas for generations. Otherwise how could Juba have known all the plant’s effects at the time of his discovery? And finally, remarks on falsification or on the means of preservation and transportation⁶⁹ show that *euphorbion* was already being commercialised before it was discovered by the King of Mauretania. Juba, in fact, turns out to be a vector of African tradition. Whatever we call him, however, it is certain that he played a central role in spreading *euphorbion* throughout the Mediterranean basin.

The Fortunes of Euphorbion

If we can believe Sextius Niger, Pliny, and Dioscorides, *euphorbion* indeed became an ingredient in the Graeco-Roman pharmacopeia very soon after Juba’s book began to circulate. It enters into recipes attributed to Archigenes, Philumenus, Aretaeus of Cappadocia, or Alexander of Tralles, to say nothing of Galen. C. Opsomer⁷⁰ lists Scribonius Largus, Marcellinus, Theodorus Priscianus, Cassius Felix, and many others as mentioning *euphorbion*. How can we explain that its dissemination was so wide and so exceptional?

It is certain that Juba’s book was excellent advertising for this unrecognised plant. The opusculum *On Euphorbion* must have gained notoriety through Juba’s status as a famous scholar, a king, moreover, and a friend of the Roman emperor. But Juba’s reign was also a time of increasing commercial exchange between Mauretania and the Empire.⁷¹ Wheat, *garum*, Tyrian purple, oil, thuja, and cedar wood for construction and furniture flowed between Mauretania and Rome, and lions and elephants were exported for Roman spectacles. The commercialisation of *euphorbion* thus probably benefited from the new trade routes that were opened thanks to the reign of Juba, who was a client of Rome.

69 Galen notes that *euphorbion* sap is kept in sheep stomachs.

70 Opsomer (1989: 1, 273–275).

71 See Roller (2003: 114–118).

More specifically, thanks to Juba, the trade of simples⁷² began to follow other routes than those coming from the Orient or Happy Arabia.

The discovery of *euphorbion* is probably the Mauretanian king's most durable legacy.⁷³ This variety now graces our gardens as a decorative plant. During antiquity it also had a military use. Julius the African, a Greek historian from the second and third centuries A.D., recounts that armies used it as a sneezing gas.⁷⁴ Rabelais⁷⁵ refers to this use when he describes the contents of one of Panurge's pockets in these terms:

En un aultre, il avoit tout plein de Euphorbe pulvérisé bien subtilement, et là mettoit un mouschenez beau et bien ouvré. . . . Et quand il se trouvoit en compaignie de quelques bonnes dames, il . . . tiroit son mouschenez et . . . le secouoit bien fort à leur nez et les faisoit esternuer quatre heures sans repos.

Another [pocket] he had all full of Euphorbium, very finely pulverised. In that powder did he lay a faire handkerchief curiously wrought . . . and when he came into the company of some good Ladies . . . , he drew out his handkerchief . . . and shaking it hard at their nose, made them sneeze foure houres without ceasing (trans. by Urquhart/le Motteux, vol. 1, 270).

But this plant, once so highly praised by Juba, is still used in medicine today.⁷⁶

In summary, I have set out to treat the question of the transplantation of Greek medicine in Rome through the example of a particular plant. The history of the discovery of *euphorbion* by Juba and his physician have led us back to the time when Greek medicine was penetrating the Roman world through figures like Asclepiades, Antonius Musa and Euphorbos himself. Juba II, who spread the discovery by means of his treatise, is a good illustration

72 On the commerce of simples during the first and second centuries A.D., see Nutton (1985) and Guardasole (2006).

73 Historians of antiquity are often unaware that Juba had a considerable posterity among medieval authors. Thus Draelants (2000) has shown that Juba survived through the writings of Pliny but also later under the name of Iorach among writers of the Middle Ages. His zoological texts also belong to the ancient core of the collection *Physiologus*.

74 See Julius Africanus *Cest.* (Vieillefond, p. 71), McKenzie (1933), and Thompson (1933).

75 Rabelais, *Pantagruel* 16 (Huchon, 276).

76 This species of the genus *euphorbia* is used in homeopathy. Moreover, in the 1970s scientists isolated a molecule specific to *euphorbia resinifera* called Resiniferatoxin RTX, a substance that has numerous therapeutic applications, notably in the treatment of cancer.

of the flowering of Graeco-Latin encyclopaedic erudition during the transition from the Hellenistic to the Imperial period and a representative of the Roman intelligentsia's enthusiasm for Greek medicine at this time. However, I have also wanted to show through the example of *euphorbion* that it is possible to nuance and refine too simplistic a polarity between the Greek and Roman worlds. Juba was a king of Numidian origin who spoke Greek and Latin but also Punic. His North African court had recourse to cosmopolitan symbols, Greek and Roman, naturally, but also Egyptian, Numidian, and African. The European Renaissance of the fifteenth and sixteenth centuries is probably a period that can be characterised by a return to the texts of antiquity and the spread of printing, but it cannot really be understood without considering the discovery of the new world. Similarly, if the Augustan century can be considered as a golden age, since it is the period during which Roman culture intensified its appropriation of Greek models, we should not obscure the fact that this golden age also fed on a form of globalisation and, in particular, the entry of Africa into the Roman Empire.

Bibliography

- Ackermann, J.C.G. (1786), *De Antonio Musa, Octaviani Augusti medico, et libris qui illi adscribuntur*, Altdorf.
- Amigues, S. (2003), "φέρβω," in: Blanc/de Lamberterie/Perpillou (eds.), 136.
- André, J. (1985), *Les noms de plantes dans la Rome antique*, Paris.
- Baader, G./Winau, R. (eds.) (1989), *Die hippokratischen Epidemie. Theorie-Praxis-Tradition* (Verhandlungen des 5^e colloque international hippocratique), Stuttgart.
- Beck, L.Y. (2005), *"De Materia Medica" by Pedanius Dioscorides*, Hildesheim.
- Benedum, J. (1967), "Die *balnea pensilia* des Asklepiades von Prusa," *Gesnerus* 24, 93–107.
- Berg, O.K./Schmidt, C.F. (1853–1863), *Darstellung und Beschreibung sämtlicher in den Pharmacopoea Borussica aufgeführten officinellen Gewächse*, Leipzig.
- Blanc, A./Lamberterie, Ch. de/Perpillou, J.-L. (eds.), "Chronique d'étymologie grecque 7 (CEG 2002)," *Revue de philologie, de littérature et d'histoire anciennes* 77.1, 113–142.
- Braund, D. (1984), "Anth. Pal. 9.235: Juba II, Cleopatra Selene and the course of the Nile," *Classical Quarterly* 34.1, 175–178.
- Camacho Rojo, J.M./Fuentes Gonzáles, P.P. (2000), "Iuba de Maurétanie," in: Goulet (ed.), 940–954.
- Cary, E. (1980), *Dio's Roman History* 6, Books 51–55, Cambridge MA/London.
- Casevitz, M. (1993), "Anthroponymes et phytonymes en grec," in: Manessy-Guitton (ed.), 85–95.

- Chantraine, P. (1979), *La Formation des noms en grec ancien*, Paris.
- (1984), *Dictionnaire étymologique de la langue grecque*, Paris.
- Collard, F./Samama, É. (eds.) (2006), *Pharmacopoles et apothicaires. Les “pharmaciens” de l’Antiquité au Grand Siècle* (Actes des 4^e Rencontres d’histoire de la médecine, des pratiques et des représentations médicales dans les sociétés anciennes, Troyes, 20–21 janvier 2006), Paris.
- Coltelloni-Trannoy, M. (1997), *Le royaume de Maurétanie sous Juba II et Ptolémée (25 av. J.-C.–40 apr. J.-C.)*, Paris.
- Desanges, J. (1978), *Recherches sur l’activité des Méditerranéens aux confins de l’Afrique (VI^e siècle av. J.-C.–IV^e siècle apr. J.-C.)*, Paris/Rome.
- (1984–1985), “L’hellénisme dans le royaume protégé de Maurétanie (25 av. J.-C.–40 apr. J.-C.),” *Bulletin archéologique du Comité des travaux historiques et scientifiques, Série B: Afrique du Nord* 20–21, 53–61 (= Reddé [ed.] [1999: 163–171]).
- Detlefsen, D. (1909), *Die Anordnung der geographischen Bücher des Plinius und ihre Quellen*, Berlin.
- Draelants, I. (2000), “Le dossier des livres ‘sur les animaux et les plantes’ de Iorach: tradition occidentale et orientale,” in: Draelants/Tihon/van den Abeele (eds.), 191–276.
- /Tihon, A./van den Abeele, B. (eds.) (2000), *Occident et Proche-Orient. Contacts scientifiques au temps des Croisades* (Actes du colloque de Louvain-la-Neuve, 24–25 mars 1997), Turnhout.
- Dubois, F. (1869), “Recherches sur la vie privée d’Auguste,” *Bulletin de l’Académie impériale de médecine* 34, 786–830.
- Fairclough, H.R. (1955), *Horace. Satires, Epistles and Ars poetica*, Cambridge MA/London.
- Golvin, J.-C./Leveau, Ph. (1979), “L’amphithéâtre et le théâtre-amphithéâtre de Cherchel. Monuments à spectacle et histoire urbaine à Caesarea de Maurétanie,” *Mélanges d’archéologie et d’histoire de l’École française de Rome* 91, 817–843, Rome.
- Goulet, R. (ed.) (2000), *Dictionnaire des philosophes antiques*, 3: D’Eccélos à Juvénal, Paris.
- Grenier, J.-C. (2001), “Cléopâtre Séléné reine de Maurétanie. Souvenirs d’une princesse,” in: Hamdoune (ed.), 101–116, 3 pl.
- Grimal, P. (1945), “Auguste et Athénodore,” *Revue des études anciennes* 47, 261–275.
- (1946), “Auguste et Athénodore (suite et fin),” *Revue des études anciennes* 48, 62–79.
- Gsell, S. (1913–1930), *Histoire ancienne de l’Afrique du Nord*, vol. 8 (1928) ([1972] ristamp Osnabrück).
- Guardasole, A. (2006), “Galien et le marché des simples aux I^{er} et II^e siècles de notre ère,” in: Collard/Samama (eds.), 29–39.
- Hamdoune, Ch. (ed.) (2001), “*Vbique amici*.” *Mélanges offerts à Jean-Marie Lassère*, Montpellier.

- Harig, G. (1983), "Die philosophischen Grundlagen des medizinischen Systems des Asklepiades von Bithynien," *Philologus* 127, 43–60.
- Jacoby, F. (1964), *Die Fragmente der griechischen Historiker*. Dritter Teil: *Geschichte von Städten und Völkern (Horographie und Ethnographie, A: Autoren über verschiedene Städte (Länder))*, Leiden, Nr 275, 127–155; a: *Kommentar zu Nr 262–296*, Leiden, Nr 275, 317–357.
- Jones, W.H.S. (1963), *Pliny. Natural History* 8, Books 28–32, Cambridge MA/London.
- (1966), *Pliny. Natural History* 7, Books 24–27, Cambridge MA/London.
- (1969), *Pliny. Natural History* 6, Books 20–23, Cambridge MA/London.
- Landwehr, Ch. (2007), "Les portraits de Juba II, roi de Maurétanie, et de Ptolémée, son fils et successeur," *Revue archéologique* n.s. 1, 65–110.
- Manessy-Guitton, J. (ed.), *Les Phytonymes grecs et latins* (Actes du colloque international, Nice, 14–16 mai 1992), Nice.
- Marasco, G. (1998), "I medici di corte nella società imperiale," *Chiron* 28, 267–285.
- Matthews, V.J. (1972), "The Libri Punici of King Hiempsal," *American Journal of Philology* 93, 330–335.
- McKenzie, R. (1933), "A Note on Julius Africanus," *Classical Review* 47.1, 9.
- Michler, M. (1993), "*Principis medicus*: Antonius Musa," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 757–785.
- Müller, C. (1883), *Fragmenta historicorum Graecorum*, vol. 3, Paris, 462–484.
- Nutton, V. (1985), "The Drug Trade in Antiquity," *Journal of the Royal Society of Medicine* 78.2, 138–145.
- Opsomer, C. (1989), *Index de la pharmacopée du 1^{er} au x^e siècle*, 2 vol., Hildesheim/Zürich/New York.
- Pédech, P. (1955), "Un texte discuté de Pline: le voyage de Polybe en Afrique (*H.N.* 5.9–10)," *Revue des études latines* 33, 318–332.
- Picard, G.-Ch. (1975), "La date du théâtre de Cherchel et les débuts de l'architecture théâtrale dans les provinces romaines d'Occident," *Comptes rendus de l'Académie des inscriptions et belles-lettres* 119.3, 386–397.
- Pigeaud, J. (1993), "L'introduction du méthodisme à Rome," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 565–599.
- Polito, R. (1999), "On the Life of Asclepiades of Bithynia," *Journal of Hellenic Studies* 119, 48–66.
- Rackham, H. (1942), *Pliny. Natural History* 2, libri 3–8, Cambridge MA/London.
- (1950), *Pliny. Natural History* 5, Books 17–19, Cambridge MA/London.
- Rawson, E. (1985), *Intellectual Life in the Late Roman Republic*, London.
- Reddé, M. (1999), *Jacques Desanges. Toujours Afrique apporte fait nouveau. "Scripta minora"*, Paris.
- Roller, D.W. (2003), *The World of Juba II and Kleopatra Selene. Royal scholarship on Rome's African frontier*, London/New York.

- (2004), *Scholarly Kings. The Writings of Juba II of Mauretania, Archelaos of Cappadokia, Herod the Great and the Emperor Claudius*, Chicago.
- Sabbah, G. (1984), "Une composition médicale d'Antonius Musa dans les textes médicaux latins tardifs," in: Sabbah (ed.), 109–123.
- (ed.) (1984), *Textes médicaux latins antiques. Antiquité et haut Moyen Âge*, Saint-Étienne.
- /Corsetti, P.-P./Fischer, K.-D. (1987), *Bibliographie des textes médicaux latins*, Saint-Étienne.
- Samama, É. (2003), *Les médecins dans le monde grec. Sources épigraphiques sur la naissance d'un corps médical*, Geneva.
- Scarborough, J. (1989), "Pharmaceutical theory in Galen's Commentaries on the Hippocratic *Epidemics*: Some Observations on Roman Views of Greek Drug Lore," in: Baader/Winau (eds.), 270–282.
- (2010), *Pharmacy and Drug Lore in Antiquity*, Surrey/Londres.
- Schmidt, A. (1979), *Drogen und Drogenhandel im Altertum*, New York.
- Spalikowski, E. (1896), *Antonius Musa et l'hydrothérapie froide à Rome*, Paris.
- Stadler, H. (1907), "Εὐφόρβιον," *Paulys Real-Encyclopädie der classischen Altertumswissenschaft* 6, 1171–1173.
- Strömberg, R. (1940), *Griechische Pflanzennamen*, Göteborg.
- Susemihl, F. (1892), *Geschichte der griechischen Litteratur in der Alexandrinerzeit*, vol. 2, Leipzig, 403–414.
- Thébert, Y. (2003), *Thermes romains d'Afrique du Nord et leur contexte méditerranéen. Études d'histoire et d'archéologie*, Rome.
- Thompson, A.W.D' (1933), "Ancient Chemical Warfare," *Classical Review* 47.5, 171–172.
- Urquhart, Th./le Motteux, P. (trans.) (1653–1694, reprint 1900), *Rabelais. Gargantua and Pantagruel*, London.
- Valastro Canale, A. (2004), *Etimologie o origini di Isidoro di Siviglia*, 2 vol., Turin.
- Vallance, J.T. (1993), "The Medical System of Asclepiades of Bithynia," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 693–727.
- Vieillefond, J.-R. (1970), *Les "Cestes" de Julius Africanus. Étude sur l'ensemble des fragments avec édition, traduction et commentaires*, Paris.
- Vollenweider, M.-L. (1966), *Die Steinschneiderkunst und ihre Künstler in spätrepublikanischer und augusteischer Zeit*, Baden-Baden.
- Wellmann, M. (1889), "Sextius Niger, eine Quellenuntersuchung zu Dioscorides," *Hermes* 24, 530–569.
- (1894), "Antonius," *Paulys Real-Encyclopädie der classischen Altertumswissenschaft* 1, 2633–2634, n° 79.
- (1907), "Euphorbos," *Paulys Real-Encyclopädie der classischen Altertumswissenschaft* 6, 1173, n° 1.

“As a Matter of Fact, This is Not Difficult to Understand!”: The Addresses to the Reader in Greek and Latin Pharmacological Poetry

Svetlana Hautala

Abstract

Once written down, every pharmacological text becomes open to all kinds of distortion of its content. It may have been inaccurately copied, for example, or its dosages may have been intentionally altered. The transcription in verse of pharmacological preparations was supposed to protect the text against any distortion, for metrical demands of verse do not easily allow for the substitution of the specified quantities of a remedy's ingredients. Furthermore, rhythmical poetry can facilitate memorization of the prescriptions. Beside its very practical functions, this production was not alien to inspiration from the Muses, and physicians shared with poets the right to invoke the gods' favour for their lines. The present paper focuses on the addresses to the readers in Greek and Latin pharmacological poetry; it shows how the practical function of preserving and transmitting information was interwoven with the author's own literary ambitions.

Who, among classical philologists, has never reflected on the bizarre choice of fate, on the concurrence of the odd circumstances which constitute the filter that selects some ancient texts and destroys, without mercy, others? Who has not wondered even just once about the (inevitably hypothetical) question: what if it was possible to influence the choice of the works that reach us from antiquity? If it were possible to make an exchange with Oblivion and to barter, for instance, Aristotle's *Problems*, or a fraction of it such as the treatise on the aroma and miasma, for the second part of his *Poetics*? Everybody has their own, perhaps unconscious, chart of the values according to which one text is worth two or three others, but resentment at, and dissatisfaction with, the fragmentary nature of ancient literature unites us all. The subject of my study—ancient pharmaceutical poetry—is often simply unknown (maybe

※ English translation revised by Gabriella Barbier and Jon Wilcox. All translations from Italian, Greek, and Latin are mine.

only Nicander, with his *Theriaca*¹ and *Alexipharmaca*,² is an occasional exception) to most philologists, but even when it becomes known it does not arouse great enthusiasm in scholars, rather entering the ranks of those works that may have been exchanged for something more important if only it were possible to negotiate in such a way with history.

So, for example, when in 1950 R. Pépin published the edition of the *Liber medicinalis* by Quintus Serenus (Sammonicus), reviewers could not help hiding their embarrassment. As W.H.S. Jones, the editor and translator of treatises of the *Hippocratic Corpus*, wrote:

Its [sc. of the *Liber medicinalis*] popularity . . . during the Renaissance is a fact, difficult as it is for us to understand why a book of prescriptions and recipes in verse should command a wide public 1,200 years after it was written, especially when the value of most of them is more than open to question.³

A year later, Ilza Veith in her review also signed the verdict according to which the “*Liber medicinalis* contains very little of medical or philosophical value,” but she praised Pépin “for making available in a modern language a work that has—deservedly or not—had a profound influence on the course of medieval medicine.”⁴

In this way, the embarrassment of both reviewers comes from a paradox: a collection of recipes the value of which is, so to speak, under question, was well known from antiquity to the Renaissance. Precisely due to this popularity this text has reached us. What could the readers of Quintus Serenus find for themselves in these verses? There is however another important claim made by Jones in his review:

One wonders what can have been the practical value of, say, twenty hexameters to a layman in medicine who had to doctor a patient suffering from anthrax, and whether colds were so rare in the ancient world, or thought so trivial a complaint, that this compiler of prescriptions considered them unworthy of mention.⁵

1 The *Θηριακά* (958 verses) discusses venomous animals, the effects of various poisons, and antidotes.

2 The *Ἀλεξιφάρμακα* (630 verses) discusses poisons, poisonous draughts, and their antidotes.

3 Jones (1952: 33).

4 Veith (1953).

5 Jones (1952: 33). Among other things, from this observation it is clear that Jones took the opportunity to express his opinion on the very existence of *Liber medicinalis* and that he had

One can resign oneself to all these references to livers of a mouse or of a vulture or of a wolf as therapies, to the medicinal value of rain water collected in an upside down skull, or to the promise that the reading of the fourth book of the *Iliad* can heal quartan fever and so on, but the poem must have been of practical value; these remedies must have helped against common diseases—how else can we explain exactly what numerous readers found for themselves in the *Liber medicinalis*?

This juxtaposition of the concrete, practical value that is expected of didactic poetry and is not required of other verse—nobody (except perhaps Quintus Serenus himself), for instance, expected the *Iliad* to be effective in such a practical and immediate way as to heal a fever—is one of the most important problems of this kind of ancient scientific production. We have enough text samples available to assess the variety of ways in which to present pharmacological material in verse. Some examples are closer to the essence of a technical text. For instance, the recipes of various medicaments versified by Servilius Damocrates (active around 50 A.D.) are sober, not overloaded with metaphor, rhythmic verses describing the preparation of remedies. In a few words: they are simple, useful, and practical.⁶ Other authors, instead, gave their tribute to the Muses, using intricate metaphors and weaving into the fabric of their verses quotations from the great poets like Homer or Pindar, Lucretius, and Horace.⁷ In the pages that follow we will often meet the tensions between these two poles, what J.-M. Jacques calls “conflit du poétique et du didactique.”⁸

In this paper I would like to show how the very existence of the phenomenon of writing pharmaceutical recipes in verse was explained and justified in Graeco-Roman antiquity and later in the Middle Ages. I will start with the general considerations unveiling themselves to the discerning reader of this scientific production and then to the appeal to the addressees of these verses in which the author directly reveals the value of such transferable knowledge.

not read the text published by Pépin carefully, because otherwise he would have noticed that chapter 15, for example, is dedicated to what corresponds more or less to “colds,” as mentioned by Jones. Quintus Serenus talks in this chapter about the problems that come from the cooling of the throat, and among the therapies mentions gargling with warm honey-water, a treatment that does not seem particularly bizarre even today. The rest of the book, too, deals with very common diseases: headaches, fevers, stomach aches, and poisoning, and what can be more practical than advice on how to eradicate dandruff (ch. 3 *Ad porriginem depellendam*), or how to fight baldness (ch. 8 *De fluxu capillorum et maculis capitis tollendis*), or how to dye hair (ch. 4 *Ad capillos tingendos*)?

6 On Servilius Damocrates see Vogt (2005).

7 See Mazzini (2000).

8 Jacques (2002: xcii).

Muses and Memory, Letters and Numbers

Why write pharmaceutical prescriptions in verse? If we look for an answer in the texts themselves, the first, most immediate reason coincides with the causes that give life to all ancient poetry—it is not man that chooses to write in prose or verse, but the Muses or the gods choose a human being to be a mediator for the divine science. Being written in Latin does not change the rules of construction for pharmacological poetry, and here too the knowledge is attributed, in the first place, to the gods. The *Liber medicinalis* by Quintus Serenus opens with a prayer to Apollo to patronise the text and thus be a guarantor of the knowledge transmitted in it.⁹ Even in the twelfth century, during Christian times when the cultural models were changing significantly, the invocation to the Muses was an integral part of pharmaceutical verse. So in the preface to his work *Properties and Praises of Compound Medicines* (*De uirtutibus et laudibus compositorum medicaminum*), Gilles de Corbeil confesses that it was the Muse that urged him to undertake the project of composing his poem.¹⁰

Another *raison d'être* of pharmacological poetry is of a more practical nature, but it is also linked to the Muses as daughters of memory: the use of poetic metre would prevent falsification or deliberate errors in the process of information transfer. As is known, Greek numbers were represented by letters in antiquity: while copying a recipe, the scribe might make a mistake and put for example “lambda” instead of “delta,” in the quantitative equivalent 30 instead of 4, an important difference in a recipe. Some recipes, writes Galen, are badly recorded (κακῶς εἰσι γεγραμμένοι), because some people intentionally falsify recipes while transcribing (τινῶν μὲν ἐν τῷ τοῖς αἰτήσασι διδόναι τὰς γραφὰς ἔχοντι ψευδομένων), and even the books deposited in libraries are not secured against the actions of those who would like to obstruct the transmission of pharmaceutical knowledge. In fact, Galen continues, it is easy to distort the dosage prescribed in recipes, changing five to nine or seventy to thirteen, just by adding a single letter or by subtracting a different single letter (τὸ μὲν πέντε ποιοῦντων ἐννέα, καθάπερ καὶ τὸ ο, τὸ δὲ ιγ, προσθέσει μιάς γραμμῆς, ὥσπερ γε καὶ ἀφαιρέσει μιάς ἐτέρας).¹¹

For this problem of the vulnerability of pharmacological texts, Galen saw two possible solutions: either write the numerical quantities in full, “hologrammatically” (ὁλογραμμάτως)¹² as Menecrates, a medical author of the

9 Ser. *Med.* 1–10, the text quoted throughout is Vollmer's (1916).

10 v. 38–43, Choulant (ed.) (1826: 50).

11 Gal. *Antid.* 1.5 (14.31 K.).

12 Gal. *Antid.* 1.7 (14.44 K.).

first century B.C., had done, rather than in individual letters, or put the recipes in verse (οὕτω ποιήσω καὶ αὐτός).¹³ Menecrates' books have not reached us and, as Galen testifies,¹⁴ no one followed his efforts to safeguard the accuracy of the dosage by writing the numbers in full: the scribes obviously found the abbreviations faster and more convenient.¹⁵ In this way the transcription of pharmaceutical recipes in verse was meant to protect the contents against any distortion: the metrical requirements did not permit an easy modification of the specified dosage of ingredients of a drug; besides, poetry could also facilitate the memorization of pharmaceutical recipes.¹⁶

There is an interesting reference in Pliny to making public time-tested medical recipes: the encyclopaedist reports on a composition that, versified, was engraved in stone and placed in the temple of Asclepius at Cos (*unam compositionem . . . clarissimam . . . incisam in lapide uersibus Coi in aede Aesculapii*).¹⁷ It is namely this duplication of the means to eternalise memory that is interesting here: why write in verse what is destined to be carved in stone? Probably to transmit the recipe in space, as well as in time, to give anyone the opportunity to memorize it and take it with them. While it may last very long, stone does not last forever, for rain and wind can destroy the bronze of monuments; poetic fame, however, is "more lasting than bronze" (*aere perennius*) and will survive even stone and metal, just as in the case of the recipe of theriac, handed down by Pliny.

However, sometimes there is not even the need to wait for the judgment of time to lose knowledge; sometimes one cannot even hope that the books that one owns (in which therefore no hand intervenes to delete exact information) will have a period of life at least equal to human life: the writings may simply be burned. The reasons provided by Galen to write pharmaceutical recipes in verse appear in a different light if we consider that they are contained in his treatise *On the Composition of Drugs According to Kind* (*De compositione medicamentorum per genera*), which was burned in the fire that destroyed the Temple of Peace in 192 and later rewritten.¹⁸

The risk of losing the books with the recipes of compound medicines is evoked by Galen several times in this work; always with the aim of repeating

13 Gal. *Antid.* 1.5 (14.32 K.).

14 Gal. *De comp. med. per gen.* 7.9 (13.996 K.).

15 Luccioni (2003: 59–60).

16 See Gal. *Antid.* 2.2 (14.115 K.); this, and other considerations by Galen on metre are discussed in von Staden (1998) and Luccioni (2003).

17 Plin. *Nat.* 20.264.

18 For Galen's library see Houston (2003) and Nutton (2009).

once again that should such misfortune occur, thanks to his method, the equivalent drugs can still be made:

Ἀλλὰ καὶ αὐτῶν συνθέντων ἀπολέσῃτε τὰς γραφάς, ὅμως ὑμᾶς αὐτοὺς δύνασθαι συντιθέναι παραπλήσια τοῖς ἀπολομένοις (Gal. *De comp. med. per gen.* 6.7 [13.888–889 K.]).

Even if you have lost your written recipes, you yourself can still compose medicines similar to those that are lost.¹⁹

And he himself is a living example of this, as he managed to rewrite his book lost in the fire. Someone else in his place would have surrendered to the situation, as, for example, two physicians mentioned by Galen:

Ὁ μὲν γὰρ ὑπὸ λύπης ἐπὶ τῇ τῶν τοιούτων γραφῶν ἀπωλείᾳ συντακεῖς ἀπέθανεν, ὁ δὲ ἀπέστη τῶν ἱατρικῶν ἔργων (Gal. *De comp. med. per gen.* 2.1 [13.459 K.]).

After suffering a similar loss, one died of a broken heart, the other changed profession.²⁰

Thus, pharmaceutical texts can shed light on the identity of those who practiced the art of medicine: once they lost their recipes, the loss prevented them from continuing the practice of the profession. Although Galen insists on the importance of the method, it is clear that the method did not help him when, in the last books of *De compositione medicamentorum per genera*, he was rewriting in verse various recipes by Servilius Damocrates: these remedies will not be merely “similar to those that are lost,” but thanks to poetical metre they will be “recreated” exactly as they were. It seems that the main lesson that Galen wanted to give by describing his triumph over the destructive forces of fire is as follows. There are many various ways of acquiring knowledge and storing it; the main thing is that those who obtain the information will not act just as containers for it, “mere bellies” (γαστέρες οἶον)²¹ of knowledge, as did the two doctors of the anecdote mentioned above who, having lost the texts from which they took the recipes, became “empty” and could not do anything, even losing all reason to live.

19 Cf. Gal. *De comp. med. per gen.* 2.1 (13.458 K.).

20 For other similar stories in Galen see Nutton (2009: 19–20).

21 Hes. *Th.* 26.

In this way, pharmacological poetry presents itself as the communicative means of ancient pharmaceutical research, in which the results of experiments on medicinal substances are dressed in the most concise and economical form of versified recipes, passed down through time and space. There were no problems with rendering numerals in Latin; nevertheless recipes were turned into verse in this language, too. Most likely the descriptive component of this scientific production was stronger than its technical aspects.

Writing a prescription in verse did not mean, in fact, simply arranging the ingredients and dosage in a rhythmical way; poetry was not just mechanically applied to pharmacology as a “crutch of memory.” There is a connection between versification and the preparation of drugs, which was considered quite natural in antiquity. In the *scholia* to the grammatical works of Dionysius Thrax, for example, grammar appears as “sister” (ἀδελφή) of medicine because both participate in “creation” (ποίησιν), the former by combining words according to the rules of metre and the latter by producing plant remedies.²² Not only does this comparison of the manipulations (with letters and pharmaceutical substances) emphasise the concept of poetry as something manufactured—verses made according to the rules of metre, and medicines whose production is described in verse—but it also introduces us to a much more immediate way of maintaining and transmitting pharmaceutical knowledge in antiquity.

Being part of the genre of didactic poetry, pharmacological verse, too, employs the variety of strategies that authors choose in order to transmit knowledge to their audience: authors always maintain a distance between themselves and the implied student, sometimes encouraging, sometimes teasing or challenging them, as is customary for every good teacher. These addresses in which the impersonal alternates with the personal fit into the system of relations of didactic poetry that consists in the interaction of four main characters: the poet-teacher, the authority that stands behind him and ensures the value of teaching, the concrete, named reader of a poem, and “the wider audience that peers over the shoulders of the addressee.”²³

Described schematically, all these statements are also true of pharmaceutical verse, but it is the variations and irregularities that interest us here. I will take five poets (two Greek and three Latin) to look more closely at ways of communicating in verse with the public to describe the preparation of drugs.

²² *Prolegomena Vossiana* 2, 9, cited in Ieraci Bio (2003: 226).

²³ Konstan (1994: 12).

Andromachus the Elder

The idea of dedicating his composition—both pharmaceutical and poetical—to Nero played a crucial role in the personal career of Andromachus, a physician native of Crete, who, thanks to his invention, became the emperor's *archiater*. “The theriac of Andromachus the Elder against vipers, called Galene,” as it was entitled in Galen,²⁴ is a poem of eighty-seven elegiac distichs. The choice of metre is probably due to the fact that it was the most widely used metre (for instance, in epigrams or epitaphs) when the author addressed the readers or listeners as if he were on first name terms with them. The style is impersonal; the author does not speak of himself, but rather praises the recipe itself and, naturally, Nero:

Κλύθι πολυθρονίου βριαρὸν σθένος ἀντιδότοιο,
 Καίσαρ, ἀδειμάντου δῶτορ ἐλευθερίας,
 Κλύθι Νέρων· ἰλαρὴν μιν ἐπικλείουσι Γαλήνην
 Εὐδιον, ἧ κυανῶν οὐκ ὄθεται λιμένων.

Listen about the vigorous power of the antidote of many virtues,
 Caesar, giver of peaceful freedom.
 Listen, Nero, it is called Galene,
 joyful and serene, the antidote that does not worry about the dark
 ports.²⁵

Thus, the very first lines of the poem argue that the remedy in question can even beat death: the “dark ports” here are a metaphor for Cocytus, the river of tears and mourning. In addition, Nero—in a text in Greek addressed to him—with all political correctness is called the “liberator of Greece.”²⁶ While listing the symptoms against which the medicine will be effective, Andromachus proceeds with caution without using the second person, i.e. Nero, as he describes the possible cases of poisoning. Everything changes once he moves to animal toxins and Nero is invoked again to be assured that:

²⁴ Gal. *Antid.* 1.6 (14.32 K.).

²⁵ Androm. 1–4 Heitsch.

²⁶ Kudlien (1986: 88) dated the poem to 67 A.D. taking the verse “giver of peaceful freedom” as an indication to the liberation of Greece made by Nero.

Confident in this antidote, Caesar, you can enjoy the summer meadows and have no fear while walking on the sands of Libya.²⁷

Andromachus here is not initiating Nero to supreme knowledge; he is not telling him mythological stories (as, for example, Nicander does). Essentially we know of his authorship of the poem because we are told so by Galen; Andromachus does not mention himself in any way. We only hear a voice that addresses itself at the beginning of the poem to Nero and at the end to Asclepius,²⁸ petitioning him to be favourable to the composition; the only role Andromachus keeps for himself is that of an impersonal mediator.

Philo of Tarsus

The approach of Philo of Tarsus is totally different from Andromachus the Elder's. The only feature that unites these two compositions is the metre, the elegiac distich, probably chosen here because it involves direct appeals to the reader. His prescription does not have a personal or named addressee, because in order to become a reader of these verses, a test and an examination must be passed. Philo too does not speak of himself in his poems, but this modesty is deceptive since it is his very recipe, speaking in the first person, to present Philo:

Ταρσέος ἰητροῖο μέγα θνητοῖσι, Φίλωνος
εὖρεμα πρὸς πολλὰς εἶμι παθῶν ὀδύνας, . . .
γέγραμμαι δὲ σοφοῖσι, μαθῶν δέ τις οὐ βραχὺ μ' ἔξει
δῶρον, ἐς ἄξυνέτους δ' οὐκ ἐπόθησα περᾶν.

I am a great invention of the physician Philo of Tarsus for mortals, against numerous pains caused by illnesses . . . I am written for the wise; a man of no little knowledge will have me as a gift. The unlearned I do not want to enter.²⁹

27 Androm. 27–28, *ap. Gal. Antid.* 1.6 (14.34 K.): τῇ πίσυνος λειμῶσι θέρους ἐπιτέρπεο Καῖσαρ, / καὶ Λιβυκὴν στεῖχων οὐκ ἀλέγοις ψάμαθον. I accept this reading, while the last word is ἄμαθον in Heitsch (1964: 9).

28 Androm. 169–174 Heitsch.

29 Ph. Tars. 1–2, 11–12 Lloyd-Jones/Parsons.

After making these promises and challenging the reader by declaring clearly that he who can read the prescription will have the medicine as a prize, and, consequently, that he who cannot read it will be a confirmed dunce, there follows a description of the composition of the antidote in which every ingredient and its dosage is not named directly, but is worded like a riddle to solve, for example:

Ξανθὴν μὲν τρίχα βάλλε μυρίπνοον ἰσοθέοιο,
οὗ λύθρος Ἑρμείας λάμπεται ἐν βοτάναις,
κρόκου δὲ σταθμὸν φρένας ἀνέρος· οὐ γὰρ ἄδηλον·

Put the blond fragrant hair of one equal to the gods, whose blood is shining in the fields of Hermes. Put of crocus so many drams as are the phrenes of a man. As a matter of fact it is not obscure.³⁰

The *phrenes* here mean the senses, of which there are five, so one must take five drams of saffron, according to Galen's explanation,³¹ without whom we probably would have never known the answers to Philo's enigmatic composition. A detailed analysis of these riddles deserves more than a few pages; since the focus of this paper is on the ways the reader is addressed in pharmacological poetry, I will dwell briefly only on the expression "As a matter of fact, it is not obscure."

Jenny Strauss Clay in her study on the addressee in Hesiod's *Works and Days* noticed that even if Perses never answers in the text and we have to imagine him as absorbing the teaching in silence, his image is not static and equal to itself in the course of the poem. When he, usually called by Hesiod "great booby" (μέγα νήπιος), is suddenly praised by him, "a good conduct medal or, perhaps, a bone for an obedient dog," according to Jenny Strauss Clay's expression,³² this change in attitude might suggest that Perses has been really convinced, even if momentarily, by his brother. We can see something similar in our text. As it was announced at the beginning to the addressee of Philo of Tarsus' verse, the choice is his: if he can read the prescription he will be considered then a part of the *sophoi* and will receive the recipe for the antidote, otherwise he will be declared stupid. The exclamation "As a matter of fact, it is not obscure" can be read as encouragement or derision, but it also marks Philo's awareness (or rather the recipe's since it speaks in the first person) that the reader has

30 Ph. Tars. 13–15 Lloyd-Jones/Parsons.

31 Gal. *De comp. med. sec. loc.* 9.4 (13.269–270 K.).

32 Strauss Clay (1994: 30).

accepted the challenge and now is trying to decipher the riddles. After all, he has read up to this point.

Quintus Serenus

The medicine *philoneion* was known to Quintus Serenus and not liked by him; in fact he does not report its composition and mentions it only to try to immediately get rid of it:

Quid referam multis conposta Philonia rebus,
Quid loquar antidotos uarias? dis ista requirat,
At nos pauperibus praecepta dicamus amica.³³

What can be said of Philo's recipes of many components and the various antidotes? Let the rich be interested in them, here I will deal with prescriptions in favour of the poor.

It is clear that when Galen quotes the full text of *philoneion* and then comments on it explaining all the enigmas, at the same time he is securing himself a place among the *sophoi*, but this does not seem to be Quintus Serenus' purpose. His approach to the transmission of knowledge is marked primarily by a complex system of relations established between the sources quoted. Unlike the two Greek texts seen above, which were dedicated to two single prescriptions invented by the authors, Quintus Serenus' project is to present all the possible remedies to illnesses concerning every part of the human body: the book itself is organised as an anatomical inspection, *a capite ad calcem*. All the knowledge presented was obtained from various sources, and it was the author of the *Liber medicinalis* who established different degrees of credibility of the information. For example, while dealing with gout Quintus Serenus notes with caution: "Let me report what I read but not heard" (785: *non audita mihi fas sit, sed lecta referre*), and when suggesting the wheat seed as a cure for quotidian fever, he takes a distance again: "if it is worthy to believe" (925: *si credere dignum est*). Another way to distance himself from the mentioned sources is by avoiding taking sides; nevertheless he illustrates the therapy as if to say "some swear by its effectiveness," as he does in chapter 48 dedicated to quartan fever.³⁴ This approach is different from Galen, for example,

33 Ser. Med. 392–394.

34 Med. 910–911.

whose personalised way of writing on pharmacology is well known; Quintus Serenus does not try to persuade the reader with his personal experience. The information of the *Liber medicinalis* is very bookish and is addressed to the learned person who will appreciate the quotations from Lucretius, Plautus, Democritus, Pliny, Ennius, Cicero, or Titus Livius in a pharmacological work; they will understand that “wave” (e.g. 255: *unda*) means “water,” *Progne* (1014) is swallow and *imber Lyaei* (840) is wine. It is precisely to such a reader, learned and refined, that Quintus Serenus addresses himself when he assumes that some medicines may shock him:

Quidam dira iubent; septeno cimice trito
ut uitientur aquae cyathusque bibatur earum:
haec potiora putant quam dulci morte perire.³⁵

Some recommend an unpleasant preparation: drinking a cyathus of water adulterated with seven squashed bugs: is considered preferable to dying of a gentle death.

Have we to imagine a reader who shrivels horrified and disgusted because Quintus Serenus invites him to reflect on which would be the better: death or a repulsive medicine?

Sometimes the author's dialogue with his readers becomes more concrete, when he directly poses a question, slightly flattering, slightly encouraging:

Vis et mirificos cautus praediscere odores,
accensis quibus arcetur taeterrima serpens?³⁶

Would you, cautious reader, like to know the prodigious perfumes
that, if burned, keep the most insidious snake far away?

The conversation that Quintus Serenus holds with his addressee is not a dialogue between a teacher and a pupil, but rather the discourse of a person who has studied the sources and thus has something to say to an educated reader. The content of the poem was not entirely dictated by the Muses, but was drawn from various sources; it is the collection compiled by the author that is offered to the god of medicine. And while the poet can simply pray Phoebus to sanction the knowledge presented in the poem as his own (2: *inuentumque*

35 *Med.* 1003–1005.

36 *Med.* 856–857.

tuum), the mortal reader of the poem, instead, must be persuaded. Since the addressee, as it may be inferred from reading the text, does not seem, in fact, to be listening in religious silence, the author must gain his trust. All in all, we can affirm that the *Liber medicinalis* was not conceived by its author as a text for memorization. But, nonetheless, it was destined to be learned by heart in the future. Beside its numerous editions, the *Liber medicinalis* continued to circulate through quotations in other works, and these transformations of the original text, the choice of certain passages in favour of others, allow us to appreciate the changing modes of addressing the reader in medieval medicinal poetry.

The Middle Ages

If an author of medieval pharmacological poetry decides to address a reader it is mostly to praise the value of his work and to explain how useful it is. The opening lines of an Italian translation of the most famous text of the Salerno School, *The Rule of Health* (*Regimen sanitatis*) by Arnald of Villanova, are characteristic in this sense:

Per sfuggir dei gran morbi i rei perigli
 E' ben si esponga in carmi
 La Scuola di Salerno, i cui consigli
 Degni di star scolpiti in bronzi e marmi.³⁷

In order to escape great diseases and perils, let the poems be presented of the School of Salerno, whose advice is worth being carved in bronze and marble.

The addresses are rarely included in the descriptions of drugs, but usually open the poem: by now the mnemonic lines are aimed at the pupils and not at colleagues; the text will be retained in memory and therefore it must contain only the technical information. In this fashion, for instance, the *Short Medical Poem* (*Poematium medicum*), attributed to Benedictus Crispus, archbishop of Milan from 681 to 725, but probably written much later, was organised.³⁸ Although it draws heavily from the work of the Quintus Serenus, the *Poematium medicum* is five times shorter; it is written in 241 hexameters, but maintains the

37 De Renzi (1857: XLIV).

38 See Brunhölzl (1959).

organisation of the *Liber medicinalis*: the cures are introduced *a capite ad calcem*. The text is addressed to a certain Maurus, represented as a kind of prodigal son. From his early childhood a pupil of the author's, he had always refused to study medicine, which he did not blush to define hateful and most repugnant (*quam prius non erubuisti nefariam et turpissimam nuncupare*).³⁹ Now, however, when Maurus is beginning to feel the burden of various diseases from which he is suffering, he asks his tutor to teach him the art of healing. The author of the poem does not perceive himself as a true poet; the choice of the hexameter was dictated by necessity as he explains in the prose preface to the work:

Breuiloquio in praesenti opusculo studens, heroico te melle pascere cupio, ut paulatim ad artis amorem adducam.⁴⁰

It is for the sake of brevity that I want to feed you with the heroic honey of this booklet in order to gradually guide you in the love of the art.

In such a way, in order to comply with the request of one who had first disdained medical studies, the author of the *Poematium medicum*, as a wise teacher, instead of writing a treatise in prose that would be too long and unattractive, chooses the hexameter to gild the pill. The higher authorities are mentioned throughout, both as a source of knowledge and as guarantors of its value: the author of the poem refers to Quintus Serenus,⁴¹ Pliny,⁴² and God.⁴³ And while we do not find any reference to Apollo in the *Poematium medicum*, the god of medicine and the Muses coexist harmoniously with descriptions of such medicines as *The Drink of St. Paul* (*Potio Sancti Pauli*) or *Good for Everything* (*Panchristum*) in *Properties and Praises of Compound Medicines* (*De uirtutibus et laudibus compositorum medicaminum*) by Gilles de Corbeil⁴⁴ (ca. 1140–1224), the physician to Philippe Auguste of France. He had first received an education in the liberal arts in Paris and then he went to Salerno to study medicine in the famous school before returning to France where he started his own teaching. In addition to his poem on the virtues of medicines, he wrote other works, in

39 Benedictus Crispus, *Poematium medicum, Praefatio*, De Renzi (ed.) (1852: 73). For the first editions and manuscripts of the poem see Brunhölz (1959) and Stannard (1966).

40 Benedictus Crispus, *Poematium medicum, Praefatio*, De Renzi (ed.) (1852: 73).

41 Benedictus Crispus, *Poematium medicum* 209.

42 Benedictus Crispus, *Poematium medicum* 107.

43 Benedictus Crispus, *Poematium medicum* 142 and 170.

44 For the biography of Gilles de Corbeil see Ausécache (1998).

verse as well, dedicated to the recognition of symptoms: *On Urines* (*De urinis*), *On the Pulse* (*De pulsibus*), and *Signs and Symptoms of Diseases* (*De signis et symptomatibus egritudinum*). It is clear that all these are more practical medical matters and verse only had the function of making learning more effective.

Also, Gilles de Corbeil did not consider himself a good poet: in fact, he apologises to those who find his verse badly composed and in incongruous metre.⁴⁵ It is in another sense that he conceives of himself as an *auctor*. As a good teacher, he is an intermediary between the illustrious authors of the past and the young students of his day: by completing, commenting on, and elaborating on the previous texts, the teacher strikes his own hallmark on the material, and therefore the enhancement with which the Latin concept of *auctor* is loaded lies in the production of new texts. Producing compendia, carefully elaborating materials, and adapting them to the young minds: this process is described as a careful preparation of the nourishment for the pupil/sons of the author of *De uirtutibus et laudibus compositorum medicaminum*. We see him in the guise of a cook: the addressee of the poem feels like the chosen one, because it is namely for him that Gilles de Corbeil says to have prepared the best dishes, excluding the ungrateful children from accessing his table, and offering carefully chosen nourishment to his beloved instead. He “cooks, on the heat of his doctrine, those foods which, consumed raw, could also hurt; he takes care that the swallowing of concepts and texts, too abundant and succulent foods, will not cause digestive troubles in the insatiable student-children, and for this he will prevent them from eating immoderately or from devouring it too quickly.”⁴⁶

To conclude, the fragmented nature of the sources does not allow us to evaluate in an exhaustive way the circulation of pharmacological poetry in antiquity and beyond. It is probable that there were other enigmatic prescriptions in verse, similar to Philo of Tarsus', which have perhaps not found their Galen to decipher them out of curiosity. Notwithstanding, it is precisely by the remaining fragments that we can evaluate a variety of forms, themes, and motives typical of this production. We have seen that the samples of the extant pharmaceutical poems are not homogeneous by nature: some describe only one medicine, others many. In these attempts to condense entire libraries into a poem, the medicines presented can be simple as, for example, (in most cases) in Quintus Serenus, or compound, as in Gilles de Corbeil. The reasons for which poetry was preferred to prose may sometimes be dictated by personal ambition, sometimes by the more or less altruistic desire to serve mankind. Some poets feel they are chosen by Apollo and by the Muses, others less so, but

45 *On Urines* (*De urinis*), *Prooem.* 14–17, Choulant (ed.), see Ausécache (1998: 194–197).

46 Agrimi/Crisiani (1988: 225).

all of them are convinced of the usefulness of their lines in communicating, in time and space, the methods of preparing medicines.

If in the Middle Ages, when poetic forms were considered as the most suitable for teaching, the addressee of pharmacological verse became a pupil, a *puer*, then that did not mean that practical use would dominate over beauty forever. In the Renaissance, for example, didactic poems, full of refined and almost cryptic metaphors, return to fashion: it is as if the author allows his readers to witness a conversation between very sophisticated persons, as in the case of the poem *On French Disease (De morbo Gallico)* (1530) dedicated by Girolamo Fracastoro to Pietro Bembo. Fracastoro (who, among other things, occupied himself with the translation⁴⁷ into Latin of Andromachus the Elder's poem on the theriac) was confident in his audience; but in the eighteenth century, when the context of the circulation of pharmaceutical verse had changed radically, Claude-Marie Giraud had to gloss even the expression "the Mantuan Swan"⁴⁸ in his poem in prose *La Thériacade*, which demonstrates how low were his expectations of the reader.

It is the success of the dialogue between the author and his addressee that answers the question why some works have reached us from antiquity and others have not. However little they may match the aesthetic tastes of some modern classical philologist, pharmacological verse had to be read, understood, and appreciated in order to survive until today.

Bibliography

- Agrimi, J./Crisciani, C. (1988), "*Edocere medicos*". *Medicina scolastica nei secoli XIII–XV*, Milan.
- Ausécache, M. (1998), "Gilles de Corbeil ou le médecin pédagogue au tournant des XII^e et XIII^e siècles," *Early Science and Medicine* 3.3, 187–215.
- Brunhölzl, F. (1959), "Benedetto di Milano ed il *Carmen medicinale* di Crispo," *Aevum* 33, 25–67.
- Choulant, L. (ed.) (1826), *Aegidius Corboliensis. Carmina Medica*, Leipzig.
- Comino, G. (ed.) (1739), *Hieronymi Fracastorii Veronensis, Adami Fumani Canonici Veronensis, et Nicolai Archii comitis carminum editio*, vol. 1, Patavii.

47 For the fragment of this translation see Comino (1739: 36–37).

48 Giraud (1769), the gloss is as follows: "Le Cygne de Mantoue, est Virgile, qui naquit à Andès, village près de Mantoue. On appelle Cygnes par métaphore, les bons Poètes, parce qu'on s'est imaginé que cet oiseau, qui est une espèce d'oye, chantoit mélodieusement un peu avant sa mort; ce qui est très-faux."

- De Renzi, S. (1852), *Collectio Salernitana, ossia documenti inediti, e trattati di medicina appartenenti alla scuola medica Salernitana*, vol. 1, Salerno ([2001], 5 vol. repr. with an introduction by Garzya, A., Naples).
- (1857), *Storia documentata della scuola medica di Salerno*, Naples.
- Fögen, Th. (ed.) (2005), *Antike Fachtexte/Ancient Technical Texts* (Papers from the conference “Fachtext und Fachsprachen in kulturhistorischer Tradition,” held at the Humboldt-Universität zu Berlin, in March 2004), Berlin/New York.
- Garzya, A./Jouanna, J. (eds.) (2003), *Trasmissione e ecdotica dei testi medici greci* (Atti del IV convegno internazionale, Parigi 17–19 maggio 2001), Naples.
- Gill, Ch.J./Whitmarsh, T./Wilkins, J.B. (eds.) (2009), *Galen and the World of Knowledge* (Based on a conference held at the University of Exeter in 2005), Cambridge, UK/New York.
- Giraud, C.-M. (1769), *La Thériacade, ou l'Orviétan de Léodon, poème héroï-comique en six chants*, Geneva/Paris.
- Heitsch, E. (ed.) (1964), *Die griechischen Dichterfragmente der römischen Kaiserzeit*, vol. 2, Göttingen, 8–15.
- Houston, G.W. (2003), “Galen, His Books, and the *Horrea Piperataria* at Rome,” *Memoirs of the American Academy in Rome* 48, 45–51.
- Ieraci Bio, A.M. (2003), “Una introduzione alle arti medico-grammaticali in un manoscritto medico (Par. Gr. 1883)” in: Garzya/Jouanna (eds.), 219–232.
- Jacques, J.-M. (2002), *Nicandre. Œuvres*, vol. 2: *Les Thériaques. Fragments iologiques antérieurs à Nicandre*, Paris.
- Jones, W.H.S. (1952), “Serenus’ *Liber Medicinalis*,” *Classical Review* 2.1, 33–34 (review of R. Pépin’s edition).
- Konstan, D. (1994), “Foreword: To the Reader,” in: Schiesaro/Strauss Clay/Mitsis (eds.), 11–22.
- Kudlien, F. (1986), *Die Stellung des Arztes in der römischen Gesellschaft. Freigeborene Römer, Eingebürgerte, Peregrine, Sklaven, Freigelassene als Ärzte*, Stuttgart.
- Kullmann, W./Althoff, J./Asper, M. (eds.) (1998), *Gattungen wissenschaftlicher Literatur in der Antike*, Tübingen.
- Lloyd-Jones, H./Parsons, P. (eds.) (1983), *Supplementum Hellenisticum*, Berlin.
- Luccioni, P. (2003), “Raisons de la prose et du mètre: Galien et la poésie didactique d’Andromachos l’Ancien,” in: Palmieri (ed.), 59–75.
- Mazzini, I. (2000), “Presenza e funzione della lingua e della letteratura poetiche profane in alcune opere mediche in versi del mondo antico,” in: Pigeaud/Pigeaud (eds.), 173–185.
- Nutton, V. (2009), “Galen’s Library,” in: Gill/Whitmarsh/Wilkins (eds.), 19–34.
- Palmieri, N. (ed.) (2003), *Rationnel et irrationnel dans la médecine ancienne et médiévale. Aspects historiques, scientifiques et culturels* (Actes du colloque international sur les textes médicaux antiques et médiévaux, Saint-Étienne, 14–15 novembre 2002), Saint-Étienne.

- Pigeaud, A./Pigeaud, J. (eds.) (2000), *Les textes médicaux latins comme littérature* (Actes du 4^e colloque international sur les textes médicaux latins du 1^{er} au 3 septembre 1998 à Nantes), Nantes.
- Schiesaro, A./Strauss Clay, J./Mitsis, Ph. (eds.) (1994), *"Mega nepios". Il destinatario nell'epos didascalico. The Addressee in Didactic Epic*, Pisa.
- Staden, H. von (1998), "Gattung und Gedächtnis: Galen über Wahrheit und Lehrdichtung," in: Kullmann/Althoff/Asper (eds.), 65–94.
- Stannard, J. (1966), "Benedictus Crispus: An Eighth Century Medical Poet," *Journal of the History of Medicine and Allied Sciences* 21, 24–46.
- Strauss Clay, J. (1994), "The Education of Perses: From 'Mega Nepios' to 'Dion Genos' and Back," in: Schiesaro/Strauss Clay/Mitsis (eds.), 23–33.
- Veith, I. (1953), "Quintus Serenus (Serenus Sammonicus) *Liber Medicinalis*. Edited and translated by R. Pépin," *Classical Philology* 48.2, 137–138 (review of R. Pépin's edition).
- Vogt, S. (2005), "'... er schrieb in Versen, und er tat recht daran': Lehrdichtung im Urteil Galens," in: Fögen (ed.), 51–78.
- Vollmer, F. (ed.) (1916), *Quinti Sereni Liber medicinalis*, Leipzig.

Magical Formulas in Pliny's *Natural History*: Origins, Sources, Parallels

Patricia Gaillard-Seux

Abstract

Pliny the Elder was the first Latin medical author to mention magical formulas. His writings refer to twenty-seven in all, thirteen being of the simplest type. The origin is discernible for two-thirds of them. A Latin origin is noted for only two of them, and two are given in Greek. The Greek influence seems decisive, with an important role played by the sympathies-antipathies and Pseudo-Democritus trend. Nine magical formulas are attributed to *magi* and one is also found in the *Cyranides* (Κυρανίδες) and the *Geoponica* (Γεωπονικά). An author is named for only one incantation: King Attalus III of Pergamum. One *carmen* probably dates back to a model existing in Classical Greece, which is likely to be true even for one of the incantations in Greek. The text of the latter needs to be better understood in order for one to grasp its principle of action and perhaps its origin.

Hippocratic medicine defines itself as rational, thus eschewing magical practices.¹ Certain doctors of the Imperial period, such as Galen, Scribonius Largus, and Caelius Aurelianus, also clearly state that these practices are outside of the medical arts.² Yet, for different reasons, most Greek and Latin doctors of the imperial period authorised or even prescribed magical cures, amulets in particular. The latter were mentioned as early as the first century

※ English translation revised by Sheena Trimble and Jon Wilcox. All translations from Greek and Latin are mine unless otherwise noted.

1 See in particular *Morb. Sacr.* 1.1–4 (6.352–357 L.; 2–5 Jouanna); *Morb. Sacr.* 1.9 (6.358 L.; 7 Jouanna); *Morb. Sacr.* 18.1–4 (6.395–397 L.; 31–33 Jouanna).

2 Gal. *De simpl. med. temp. ac fac.* 6.pr. (11.792 K.), regarding amulets, incantations and other rites; *De simpl. med. temp. ac fac.* 9.2.19 (12.207 K.), regarding amulets; Scrib. Larg. 17, after the mention of cannibalistic remedies for epilepsy; Cael. Aur. *Acut.* 3.16.137, regarding amulets against hydrophobia. Roman law expressed the same point of view: a doctor who used incantations could not ask for payment because “these are not types of medicine, even though there are people who have publicly stated to have benefited from them” (*Dig.* 50.13.1.3).

in the writings of Latin (Scribonius Largus) and Greek (Dioscorides) doctors.³ Soranus of Ephesus, although convinced of their lack of efficacy, is not opposed to their use because they restore moral energy in women (*Gyn.* 3.12). Galen, while judging magical practices to be superstitious and bogus, recognises but questions the source of the efficacy of certain amulets. He passes on formulas, some of which had been used by Archigenes, who did not hesitate to recommend magical remedies.⁴ No doubt other medical practitioners of the time did the same although the proof thereof is lost to posterity because their writings have not survived. The surviving texts give the impression that ancient doctors did not have recourse to magical formulas until the end of antiquity, when practically all types of magical practices, incantations, in particular, appear to have been accepted by the majority of doctors.⁵ This is obvious in the writings of Latin doctors such as those of Cassius Felix dating from 447 A.D. The texts of certain Latin medical authors, who do not seem to have practised medicine professionally, cite the use of incantations earlier than this time, albeit with a certain reserve. Marcellus the Empiricist was among the first to prescribe such treatments without reservation.

At the end of antiquity, magical cures were often distinguished from medical cures as being *physika*, or “natural remedies.”⁶ They were meant to make the most of the interplay between the sympathies and antipathies that existed in nature.⁷ Democritus was credited with bringing to light the existence and medical use of sympathies and antipathies in a work written in Alexandria

3 Scrib. Larg. 16, 163, 164, 171, 172; Dsc. 2.47, 2.56, 2.63, 2.114 *et passim*.

4 Gal. *De comp. med. sec. loc.* 2.2 (12.573 K.). Archigenes was a famous doctor at the time of Trajan, influenced by pneumatics. His writings, which are lost, were: three books on diseases of the organs and parts of the body, a work of pharmacology (fragments in Galen), and a treatise on the pulse, commented on by Galen, see Oser-Grote (2005). He is the second-most cited doctor in Galen's pharmacological works. The latter was searching for a rational explanation, linked to their medical properties, for the efficacy of amulets (*De simpl. med. temp. ac fac.* 6.10 [11.859–861 K.]).

5 Ammianus Marcellinus, speaking of condemnations for magic in 356–357, states that the use of incantations was accepted by medical authorities (Amm. 16.8.2); Caelius Aurelianus says that followers of certain schools of medicine turned to magical practices, such as incantations (Cael. Aur. *Chron.* 1.119, 3.138). The authenticity of Galen's (lost) treatise on the medicine of Homer where he affirmed, according to Alexander of Tralles (11.1 [2.475.4–15 P.]), the efficacy of incantations seems doubtful, see Kudlien (1965).

6 See for example Marcellus, titles of ch. 8, 10, and 11; Cass. Fel. 32.4, 32.5, 57.4, 69; Alex. Trall. 7.9 (2.319.7 P.; 2.319.12 P.), 8.2 (2.377.1 P.; 2.377.29 P.), 11.2 (2.475.18 P.) *et passim*.

7 Alexander of Tralles, who took up ancient traditions, justifies his recourse to *physika* as follows: “We have found that the best of the ancients attest that the art (of medicine) cannot ignore the existence of antipathy and that practitioners cannot appear to remain indifferent to or pretend ignorance of the antipathies and sympathies of nature” (8.2 [2.375.15–18 P.]);

during the Hellenistic period.⁸ In fact the author was only a Pseudo-Democritus, his real name being Bolus of Mendes.⁹ This belief in the medical effect of natural sympathies and antipathies reflects a particular trend in Greek Hellenistic medicine, at odds with Hippocratic rationalism, which nevertheless infiltrated the writings of his heirs and was also incorporated into Latin medical texts. By the end of antiquity, however, all magical remedies, whatever their origin, were referred to as *physika*. On the other hand, magical medicine continued to exist in Greece ever since the time of Hippocrates,¹⁰ as was undoubtedly the case in Italy and elsewhere in the Mediterranean. During the Imperial era, over the course of several centuries, Hellenistic remedies based on sympathies and antipathies and representing a mix of Greek and Eastern practices became widely diffused. The magical remedies mentioned by late Latin authors, including the formulas, could thus have had various origins, which are made even more difficult to pinpoint by the fact that these authors rarely cited their sources.

Writings from earlier times such as those of Pliny thus present interesting possibilities. Pliny, the first Latin medical author to mention magical formulas,¹¹ provides some indications as to his sources and sometimes facilitates connections with other information. He believed in the existence of sympathies and antipathies in nature, while at the same time being hostile to *magi* ("magians"). Thinking he was using Democritus, he seems to have relied heavily on Bolus of Mendes or sources based on him.¹² An examination of the incantations he cites could help to determine, for a relatively early period, the extent of the Latin tradition and the Greek influence present therein, whether coming from Hellenistic ideas of sympathies and antipathies or from more ancient Greek traditions.

Galen, referring to the amulets of Archigenes, refutes the existence of antipathy (Gal. *De comp. med. sec. loc.* 2.2 [12.573 K.]). Also Sor. *Gyn.* 1.20, 3.12.

8 See Rufus of Ephesus citing an amulet attributed to Democritus (in Oribas. *Coll. med.* 44.17 [3.607 D.B.]) or Tatianus *Ad Gr.* 17.

9 Bolus of Mendes was a Hellenised Egyptian who, between 260 and 100 B.C., wrote a book on the natural sympathies and antipathies and another entitled *Chirocmeta* (literally "handmade things"). Either he or others attached the name of Democritus to his writings. For more on Bolus and for a bibliography on him, see Gaillard-Seux (2009).

10 Certain authors revel in recalling that Greek medicine as early as Homer used incantations (Ael. *NA* 2.18; Apul. *Apol.* 40.4).

11 Cato (*Agr.* 160) and Varro (*Rust.* 1.2.27) each mention medical *carmen*, but they were agronomists and not medical authors.

12 Gaillard-Seux (2003).

Pliny mentions twenty-seven magical formulas in all,¹³ some simply as a part of his denunciation of *magi* or, at the beginning of Book 28, as examples of his theories on the power of speech. Thirteen are of the simplest type¹⁴ indicating the disease a remedy is meant to counteract¹⁵ or, on occasion, mentioning the patient's name¹⁶ or noting both the name of the disease and that of the patient.¹⁷ The other formulas generally accompany actions related to either the harvest or the use of a remedy. This is the case for nine incantations (including one related to veterinary medicine).¹⁸ In addition, Pliny mentions engraving the name of the moon and the sun on amethyst (*Nat.* 37.124). Otherwise, very few formulas are of a performative nature, i.e., such that merely uttering or writing them would be enough to render them effective. Pliny mentions only one magical formula of this type¹⁹ and two others as examples in the introduction of Book 28 where he ponders the power of the spoken word.²⁰

The fact that Pliny acknowledges mostly simple incantations, or those which accompany an action, and transmits neither incomprehensible incantations nor implausible little stories (*adunata*)—in contrast to later authors—can be explained by his reticence toward magic in general and his opinion that incomprehensible incantations were ridiculous. Nevertheless, he accepted certain magical formulas because he did not rule out the idea that speech had power, and thus recommended these formulas especially when confronting formidable illnesses, such as fevers. The formulas he writes about are, however, sufficiently numerous to enable this study.

To begin, one can observe that although almost all the *carmina* he mentions are in Latin (except for two in Greek),²¹ only two are certain to be of Latin origin. The incantation accompanying the use of the reseda comes from Ariminum (present day Rimini):

13 I have already outlined some characteristics of these formulas: Gaillard-Seux (2004).

14 See Heim (1893) for the classification of incantations.

15 At the harvest of a plant (*Plin. Nat.* 21.166; *Plin. Nat.* 24.133; *Plin. Nat.* 27.140), the preparation (*Plin. Nat.* 28.86; *Plin. Nat.* 30.101) or the use (*Plin. Nat.* 20.151; *Plin. Nat.* 26.116; *Plin. Nat.* 30.51) of a magical cure.

16 At three plant harvests (*Plin. Nat.* 21.176; *Plin. Nat.* 22.38; *Plin. Nat.* 22.50).

17 At two plant harvests (*Plin. Nat.* 21.143; *Plin. Nat.* 23.103).

18 Harvest: *Plin. Nat.* 22.61, *Plin. Nat.* 24.176; use: *Plin. Nat.* 24.181, *Plin. Nat.* 26.92–93, *Plin. Nat.* 27.100, *Plin. Nat.* 27.131, *Plin. Nat.* 28.42, *Plin. Nat.* 28.48, *Plin. Nat.* 28.215.

19 *Plin. Nat.* 28.155; see p. 210.

20 *Plin. Nat.* 28.24, *Plin. Nat.* 28.29; see p. 208 and 212.

21 See *Plin. Nat.* 27.100 and n. 44; *Plin. Nat.* 28.29 and p. 212.

Circa Ariminum nota est herba quam resedam uocant. Discutit collectiones inflammationesque omnes. Qui curant ea, addunt haec uerba: "Reseda, morbis reseda; / Scisne, scisne, quis hic pullus egerit radices? / Nec caput nec pedes habeat". Haec ter dicunt totiensque despuunt (Plin. *Nat.* 27.131).

Around Ariminum the plant called reseda is known. It disperses all gatherings and inflammations. Those who use it in treatment add these words: "Reseda, allay diseases; / Dost thou know, dost thou know what offshoot planted its roots here? / May it have neither head nor foot." They say these words three times, and spit three times (trans. by Jones [1956], modified).²²

Whether compiled by Pliny himself or by one of his sources, it seems to fall under the oral tradition of this city, a Latin colony founded by Rome in 268 B.C. The encyclopaedist indicates a specific Italian source for a recipe for magic on only one other occasion.²³

In addition, a formula where the patient's name must be specified was taken from "certain persons of ours" (*quidam e nostris*), in other words Latin authors:

Quidam e nostris tempore discreuere genera et autumnalis urticae radicem adalligatam in tertianis ita ut aegri nuncupentur, cum eruatur ea radix, dicaturque cui et quorum filio eximatur, liberare morbo tradiderunt; hoc idem et contra quartanas pollere (Plin. *Nat.* 22.38).

Certain persons of ours have distinguished nettles by their season, stating that the disease is cured if the root of the autumn nettle is used as an amulet for tertian ague, provided that when this root is dug up the names of the patients be uttered, and it be said for what man it is taken up and who his parents are; the same method is effective in quartan agues (trans. by Jones [1951] modified).

In this case, the patient must be named, but also his parents, whereas in other formulas only the patient must be named, such as in this passage:

22 Reseda may be white reseda (*Reseda alba*). For the bibliography on this incantation, see Gaillard-Seux (2004).

23 Use of the *natrix* root in Picenum to keep *Fatui* (Plin. *Nat.* 27.107), avatars of fauns, away from women.

Radix eorum circumscripta terra manu sinistra capitur ita ut qui id faciet dicat quare capiat et cuius causa; sic adalligata strumis medetur (Plin. *Nat.* 23.103 [quince-tree]).

Their root, after a ring has been drawn round it on earth, is pulled up with the left hand, the person doing so being careful to state why he is pulling it, and for whom. An amulet from such a root cures scrofulous sores (trans. by Jones [1951] modified).

Is this source mentioned because the practice differed slightly from those seen elsewhere—even more so because two of the formulas where the patient must be named come from *magi*—or was it to demonstrate the contrast with the most frequent sources, primarily Greek, where information appeared uniquely in the writings of Latin authors? Pliny sometimes mentions drawing his information from Latin authors when giving the Latin name of a plant²⁴ or of certain remedies, magical or not, such as in the use of wild eryngium:

Aliqui e nostris sub solstitio colligi eam iussere, ex aqua caelesti inponi omnibus ceruicis uitiiis, oculorum quoque albugines sanare adalligatam tradiderunt (Plin. *Nat.* 22.22).

Some persons of ours have recommended it to be gathered near the summer solstice and to be applied with rain water for all affections of the neck. They have recorded that albugo also of the eyes is cured by using it as an amulet (trans. by Jones [1951] modified).²⁵

It would seem that the mention of uniquely Latin authorities, or an exclusively Roman fact, was sufficiently rare for Pliny to feel the need to highlight it, in the same manner as Greek authors such as Julius Africanus.

The majority of the magical formulas seem in fact to be drawn from Greek sources. Apart from the two mentioned, one *carmen* includes a Greek term. The incantation which accompanies the gathering of agrimony (*Agrimonia eupatoria* L.) uses the plant's Greek name (*argemon*) not the Latin name (*lappa canaria*) that Pliny gives it, thus indicating a Greek source:

Medetur et subus effossa sine ferro, addita in colluiem poturis uel ex lacte ac uino. Quidam adiciunt effodientem dicere oportere: haec est

²⁴ See for example Plin. *Nat.* 21.109, Plin. *Nat.* 22.43, Plin. *Nat.* 22.59, Plin. *Nat.* 22.135.

²⁵ See also Plin. *Nat.* 22.150.

herba argemon, quam Minerua repperit subus remedium, quae de illa gustauerint (Plin. *Nat.* 24.176).

It also cures pigs, if dug up without iron; it is added to their swill before they go to feed, or else given them in milk and wine. Some add that as he is getting it up the digger should say: "This is the plant *argemon*, that Minerva²⁶ discovered to be a remedy for the pigs that shall taste of it" (trans. by Jones [1956]).

Another formula is also undoubtedly from a Greek source:

Partus accelerat hic mos, ex quo quaeque conceperit, si cinctu suo soluto feminam cinxerit, dein soluerit adiecta precatione euinxisse eundem et soluturum, atque abierit (Plin. *Nat.* 28.42).

Birth is induced by this custom: the man by whom a woman has conceived, having untied his belt, puts it around the woman, then takes it off while adding the formula that the same who tied it will untie it, and then departs.

Indeed Sextus Placitus (17.11) passes on a similar formula whose corrupt text led to a contested publication by Howald and Sigerist; Ferraces Rodríguez remarked that in reality the manuscripts include the term *desas*, aorist participle of the verb δέω ("tie, attach").²⁷ It seems improbable that Pliny was Placitus' source because the presence of this Greek term would then be strange; the source was Greek or already included this untranslated term that Sextus Placitus reuses. Pliny's source itself was therefore Greek.

In addition, apart from the references to Latin authors or Italian origins, Pliny's allusions to his authorities point to Greek-language sources. Only once does he indicate the name of the author who supplied the formula in question.

²⁶ Athena's name was replaced by Minerva's as was the Roman habit.

²⁷ Howald-Sigerist edition (1927): *Vt mulier concipiat. Homo uir si soluat semicunctium suum et eam praecingat et dicat: ego de hoc explico te laborantem.* ("For a woman to conceive: if the man who is her husband unties his belt and puts it around her and says: I unbind thee from that, thee who suffers"). Text by A. Ferraces-Rodríguez (2006: 264–265): *Vt mulier cito pariat: Homo uir si soluat semicunctium suum et eam praecingat et dicat: ego desas explica<bo> te laborantem.* ("For a woman to give birth quickly: if the man who is her husband unties his belt and puts it around her and says: I, having tied, will deliver thee who suffers"), see Ferraces-Rodríguez (2006: 253–265), Ferraces-Rodríguez (2010: 37–40, 42), Ferraces-Rodríguez (2012: 356–357).

In his discourse on the power of speech, he gives an example of the preventative use of an incantation against scorpion stings:

Attalus adfirmat scorpione uiso si quis dicat duo, cohiberi nec uibrare ictus (Plin. *Nat.* 28.24).

Attalus certifies that if on seeing a scorpion one says 'two', it will be checked and not strike (trans. by Jones [1963] modified).

The author was the Hellenistic king, Attalus III of Pergamum (138–133 B.C.), a natural science, pharmacology and agriculture enthusiast whose works have been lost. He produced a treatise on agriculture cited by Varro (*Rust.* 1.1.8), Columella (1.1.8) and Pliny (*Nat.* 18.22; index of Books 14, 15, and 18). He also wrote on pharmacology, and Galen cites him with praise. Celsus, Pliny, and Galen describe several of his cures which have nothing to do with magic²⁸ and Pliny names him in the index of remedy Books 28 and 31. Attalus III could thus be one of the early medical authors who recommended incantations as well as rational remedies. But this formula perhaps appeared in his book on agriculture, a type of work closer to rural traditions, where the prevention and treatment of bites and stings were unavoidable concerns and where authors made room for incantations and magical cures earlier and more easily.

The identity of the most frequent source is less clear. Pliny notes that certain rites or incantations are recommended by *magi*. They are mentioned nine times in the formulas he records: in four of the eight formulas where the disease is indicated (*Nat.* 21.166, *Nat.* 27.140, *Nat.* 28.86, *Nat.* 30.51), two of the three where the patient is named (*Nat.* 21.176, *Nat.* 22.50), as well as in two of the nine incantations accompanying an action (*Nat.* 22.61, *Nat.* 28.215); the amethyst engraved with the names of the moon and the sun is also attributed to *magi* (*Nat.* 37.124). There is little chance that Pliny had consulted magical manuals directly given his condemnation of magic in principle. In Wellmann's opinion, these references were taken from Anaxilaus of Larissa who, in citing Bolus of Mendes, would have been the main source by which Pliny had access

28 Celsus recommends a copper plaster for injuries (Cels. 5.19.11), Pliny suggests the use of tuna fat against skin disease (Plin. *Nat.* 32.87), Galen writes of a white plaster with pepper for ulcers (Gal. *De comp. med. per gen.* 1.13–14 [13.414–427 K.]) and a composition for digestive and intestinal problems (Gal. *De comp. med. sec. loc.* 8.3 [13.162–164 K.]). See also Gal. *De simpl. med. temp. ac fac.* 10.1 (12.251 K.) and Gal. *Antid.* 1.1 (14.2 K.) on his knowledge of remedies and the fact that he wrote little on animal remedies; Iust. 34.4.3; Plu. *Demetr.* 20.3 on his interest in poisons and plants.

to Bolus.²⁹ This opinion was rightfully judged excessive by Bidez and Cumont, who wonder if by *magi* Pliny—or the authors he followed—was referring to Persian priests or magicians in general. For them, in any case, the sources of herbal remedy books probably echoed “very heterogeneous Eastern sources.” They note that in Book 37 on gems, when speaking of *magi*, Pliny’s source seems to have been referring to Persian *magi*, according to three passages (124, 142, 147), and employed the term when the same text was found in lapidaries attributed to the famous three *magi* (Zoroaster, Damigeron, Osthanes).³⁰

Some passages do indeed refer to *magi* in a Persian context, most notably those who are known to have come from *Chirocmeta*.³¹ But it is not clear in Pliny’s writings whether the term always refers to the Persian priests seen as magicians, even in Book 37. In *Nat.* 37.124, in reality, the engraving of the names of the moon and the sun on an amethyst, recommended by *magi*, suggests Eastern magicians in an Egyptian context since the stone had to be worn with the hair of a cynocephalus and feathers of a swallow:

Magorum uanitas . . . promittit . . . si lunae nomen ac solis inscribatur in iis atque ita suspendantur e collo cum pilis cynocephali et plumis hirundinis, resistere ueneficiis (Plin. *Nat.* 37.124).

The *magi* make the false promise . . . that if the names of the moon and the sun are engraved there, and if they are suspended around the neck with cynocephalus hair and swallow feathers, they will protect against evil spells.

What’s more, it was a magical intaglio like those produced in Egypt from the end of the Hellenistic period onward. One must therefore conclude that Pliny’s *magi* are at times Persian priests considered to be magicians and at other times Eastern magicians, named in a Greek-language source. Indeed the main source of Books 29–30 and 37, where they are often cited, seems to have been

29 Anaxilaus, originally from the Thessalian city of Larissa, was a Neo-Pythagorean and magician, who is said to have moved to Rome around 40 B.C. He was chased out in 28 B.C. when Augustus expelled magicians and astrologists from Rome. His writings have been lost, but some of his formulas are conserved in a magical papyrus and in the Holmes alchemical papyrus; Pliny sometimes cites it. See Wellmann (1928: 48–51).

30 Bidez/Cumont (1938: 117 and 130).

31 Plin. *Nat.* 24.160–166; Plin. *Nat.* 26.18–19.

Xenocrates relying on Bolus of Mendes.³² For Pliny, moreover, magic was above all an art born in Persia and particularly cultivated by the Greeks (*Nat.* 30.1–20). The pseudo-Democritean trend of sympathies and antipathies seems to have been in the background, as was probably the case for Hellenistic apocrypha attributed to the famous *magi*.³³

Furthermore, the formula constituting the remedy on its own, where words transfer pain to an animal, comes indubitably from a Hellenistic apocrypha:

Si quis asino in aurem percussum a scorpione se dicat, transire malum protinus tradunt (Plin. *Nat.* 28.155).

It is claimed that if someone says in a donkey's ear that he has been stung by a scorpion, the pain will immediately pass to the animal.

It also appears in the *Cyranides* (Κυρανίδες), which is already an indication of Greek origin:

Εἰ δέ τις ὑπὸ σκορπίου πληγῇ καὶ εἶπῃ εἰς τὸ οὖς τοῦ ὄνου ὅτι σκορπίος με ἔπληξεν, ὁ μὲν πληγείς ἰαθήσεται, εἰς δὲ τὸν ὄνον ἡ ὀδύνη μεταπεσεῖται (2.31 [164 Kaimakis]).

If someone is stung by a scorpion and then says in the donkey's ear: "A scorpion has stung me," the injured person will be healed, but the pain will pass to the donkey.

Likewise, it is found in two passages of the *Geoponica* (Γεωπονικά): in a chapter attributed to Diophanes of Bithynia, where the formula is ascribed to Democritus (13.9.6) and in the chapter on natural sympathies and antipathies attributed to Zoroaster (15.1.25):

Περὶ σκορπίων. Διοφάνους . . . Δημόκριτος δέ φησι, τὸν πληγέντα ὑπὸ σκορπίου, καὶ εὐθέως εἰπόντα τῷ ὄνῳ, σκορπίος με ἔπληξεν, οὐκ ἀλγήσειν, τῆς ἀλγῆδόνος εἰς τὸν ὄνον μεταβαίνουσας (13.9.6).

32 Wellmann (1907), Scarborough (1986). According to Galen (*De simpl. med. temp. ac fac.* 6.pr. [11.792–793 K.]), Xenocrates, a contemporary medical author of Pliny, passed on numerous magical formulas.

33 These theories on the *magi* are not incompatible with that of Nock for whom the word refers to an identifiable corpus of literature probably forged in an Alexandrian context (Nock [1972: 313–315]).

On scorpions. From Diophanes... Democritus states that he who has been stung by a scorpion and immediately says to the donkey: "A scorpion has stung me," will not suffer, as long as the suffering passes to the donkey.

Περὶ φυσικῶν συμπαθειῶν καὶ ἀντιπαθειῶν. Ζωροάστρου... ἐὰν ὁ πληγῇς ὑπὸ σκορπίου εἰς τὸ οὖς εἴπῃ τοῦ ὄνου, σκορπίος με ἔπληξεν, οὐκ ἀλγήσει, εἰς τὸν ὄνον μετελθούσης τῆς ἀλγηδόνος (15.1.25).

On natural sympathies and antipathies. From Zoroaster... if someone stung by a scorpion says in the donkey's ear: "A scorpion has stung me," he will not suffer, as long as the suffering passes to the donkey.

Diophanes of Bithynia (or of Nicaea) was one of the translators/compilers of the agronomical works of Mago the Carthaginian, which the Senate had translated into Latin after the destruction of Carthage in 146 B.C. This was then translated into Greek just before 88 B.C. by Cassius Dionysius of Utica, who reduced the work from twenty-eight to twenty books and added information from Greek agronomists. Diophanes compiled the writings of Dionysius in six books titled *Georgica* (Γεωργικά), dedicated to King Deiotarus of Galatia—who received this title in 64 B.C., which indicates the *floruit* of Diophanes. Diophanes' work was then summarised in two books by Pollio of Tralles (*floruit* under Pompey).³⁴ As for Zoroaster, who is often cited in the *Geoponica*, these citations may have come from a *Περὶ φύσεως* (*On Nature*) apocrypha probably dating from the third century B.C.³⁵

The citations of authors in the *Geoponica* are not very reliable, however, particularly the attributions of chapters; thus the two chapters in question cite authors later than Diophanes in the first case and later than the Hellenistic period in the second.³⁶ According to Wellmann, the bulk of the chapter attributed to Zoroaster—but not the formula in question—dates back to Pamphilus having used Bolus of Mendes.³⁷ As for Democritus' recommendation in the chapter attributed to Diophanes, it is impossible to determine whether it comes from Diophanes, from his abridger, from Cassius Dionysius or perhaps

34 On the translators of Mago: Varro *Rust.* 1.1.10, Colum. 1.1.13, Plin. *Nat.* 18.22–23, *Suda* s.u. "Pollion"; Heurgon (1976), Devillers/Krings (1996).

35 Bidez/Cumont (1938: 107–111).

36 In 13.9: Apuleius, Plutarch, Florentinus, Tarentinus; in 15.1: Plutarch, Pamphilus, Nestor (of Laranda?). On these questions, see Guignard (2009) and the bibliography in Meana/Cubero/Sáez (1998); Lelli (2010: XXXIII).

37 Wellmann (1916).

Mago, or even from an addition by the compiler of the *Geoponica* (Cassianus Bassus) or by another of his sources. Democritus was credited with a book on agriculture that modern scholars have ascribed either to him or to Bolus of Mendes, unless Democritus' work was contaminated by Bolus' recipes.³⁸ Many formulas ascribed to Democritus in the *Geoponica* are magical and probably come from apocrypha, possibly the book on sympathies and antipathies or Bolus' *Chirocmeta* (lit. "handmade things"), if not the book on agriculture.

Whatever the case, the formula in question undoubtedly originated from a Hellenistic apocrypha, the pseudo-Zoroaster or Bolus. Bolus of Mendes may have used the pseudo-Zoroaster's *Περὶ φύσεως*,³⁹ and the presence of this formula in a chapter on sympathies and antipathies also tends to point to the pseudo-Democritus in Pliny's writings, however he may have obtained it.

The magical formulas in Pliny's writing are thus primarily of Greek origin; most can be traced to Hellenistic sources, principally apocryphal, and to the trend of sympathies and antipathies. But one of the Greek formulas, the letters RA on a papyrus, which Pliny shows was used by a Roman senator, seems to have been taken by its bearer from a book of magic analogous to Greek magical papyri:

M. Seruilius Nonianus princeps ciuitatis non pridem in metu lippitudinis, priusquam ipse eam nominaret aliusue ei praediceret, duabus litteris graecis PA chartam inscriptam circumligatam lino subnectebat collo. (*Nat.* 28.29)

M. Seruilius Nonianus, one of the notables in the city, who was not so long ago afraid of ophthalmia, tied round his neck, before he mentioned the disease himself or anyone else spoke to him about it, a sheet of paper fastened with thread, on which were written the two Greek letters rho and alpha (trans. by Jones [1963] modified).

The incantations cited by Pliny could, however, be of an ancient Greek origin dating back to Classical Greece, even if by way of the intermediary of apocryphal Hellenistic sources (amassing traditions from all over the eastern Mediterranean basin), as the following two examples demonstrate.

The first example is the incantation accompanying the use of mullein (*Verbascum thapsus*):

38 See especially André (1970: 11–17) and titles n. 36 for an evaluation of the question.

39 Wellmann (1928: 14), Bidez/Cumont (1938: 118–119).

Panos sanat . . . uerbas cum sua radice tusum, uino aspersum folioque inuolutum et ita in cinere calefactum, ut inponatur calidum. Experti adfirmare plurimum referre, si uirgo inponat nuda ieiuna ieiuno et manu supina tangens dicat: "negat Apollo pestem posse crescere cui nuda uirgo restinguat;" atque ita retrorsa manu ter dicat, totiensque despuant ambo (Plin. *Nat.* 26.92–93).

Superficial abscesses are cured by . . . mullein ground with its root, sprinkled with wine, wrapped round with its leaves and heated in ashes to be applied hot. Those who have tried it have attested that it is very important that a naked, fasting virgin perform the application on a fasting patient and that while touching [the abscess] with the back of her hand, she say: "Apollo forbids the plague to grow in him over whom a naked virgin extinguishes it." And with her hand so reversed, she should say this formula three times, and both (she and the patient) should spit each time.

Faraone emphasised that this incantation seems to repeat a Greek formula, a model of which is indicated by Marcellus (*Med.* 29.23). The latter advises engraving an iambic line of verse on a golden ring adorned with a fish or a dolphin:

θεὸς κελεύει μὴ κύειν κόλον πόνους.

God (or a god) commands that the belly not conceive pains (trans. by Faraone [2009: 235], modified).

Three rings corresponding to this description with slight variations have been found.⁴⁰ In addition a small bronze prism from the Imperial period found at Antioch and worn as an amulet substituted Φοῖβος for θεός:

40 A gold ring conserved at the Galleria dell'Accademia in Florence seems to have been fabricated following these instructions, although the inscription differs slightly: θεὸς κελεύει μὴ ἔχειν πόνους κόλον. ("God commands that the belly not have pains"). It is also Christianised because a cross precedes it (King 1873: 197). An octagonal lead ring in the Cabinet des Médailles in Paris (found in Beirut, Seyrig collection n° 9, unpublished) begins with a similar trimeter: θε(ός) κελεύει μὴ κύειν κόλον πόνον ἐν δυνάμει Ἰαω. ("God [or a god] commands that the belly not conceive pain, under the authority of Iao" (trans. by Faraone [2009: 235], modified). A gold ring from Rome (Bonner [1950: 64]), decorated on the outside by an undulating serpent as well as by magical letters and symbols, bears an inscription on the inside which is almost identical, with the verb in the first person singular: θεὸς κελεύω μὴ [κ]ύειν πόνο[ν] κόλον ("God [or a god], I command that the belly

Φοῖβος κελεύει μὴ κύιν (*sic*) πόνον πόδας.

Phoebus commands that the feet not conceive pain (trans. by Faraone [2009: 237] modified).⁴¹

Apollo was thus the god in charge, as in Pliny's writings—and I would argue that on these rings, the serpent, like the dolphin, refers to Apollo. This role would have come from his oracular duties—a collection of oracles show him as the subject of the verb *κελεύειν* ("command").

According to Faraone, the first five words of the Plinian formula (*negat Apollo pestem posse crescere*, "Apollo forbids the plague to grow"), twelve syllables in total, include an iambic senarius, which reproduces the basic syntax of the Greek charm: θεὸς κελεύει μὴ κύειν κόλον πόνον. The Latin version conveys the Greek alliteration (triple kappa) by the triple repetition of P.⁴² Yet, a trimeter from Aeschylus' *Eumenides* (830–832) presents the same alliteration as the Greek texts:

κοίμα κελαινοῦ κύματος πικρὸν μένος.

Lull to repose the bitter force of your black wave of anger (trans. by Lloyd-Jones [1979: 261]).

Athena utters this incantation to calm the anger of the Furies, an emotion which like colic was linked to bile. Aeschylus would then be imitating a popu-

not conceive pain" (trans. by Faraone [2009: 236], modified). This ring possibly treated the uterus, not the intestine. The trimeter is followed by the letters *μῆτρασπασεως*, perhaps a corruption of *μήτρας πάσης*. According to Faraone, one should therefore understand this to mean "belly of the entire womb." There was considerable substitution and confusion between amulets for the intestine and stomach and those for the uterus. It is possible that the use of the verb *κύειν* ("conceive") indicates that this type of incantation was first used for uterine pain, see Faraone (2009: 236).

41 *IGLS* 3.1083, Bonner (1950: 76–77). The mention of the foot instead of the colon is perhaps due to the confusion between *κόλον* and *κῶλον* ("limb," esp. "leg").

42 The Latin text suggests that *πόνον* could be the subject of the verb *κύειν* in three of the Greek documents whose text would therefore mean: "God [or a god] commands that the pain not develop, with respect to the belly/feet" (trans. by Faraone [2009: 239], modified). The word *κύμα* ("wave, billow"), derived from *κύειν*, suggests that the verb could sometimes mean "swell, grow" as happens to a pregnant woman, and thus can be roughly translated as *crescere*, see Faraone (2009: 239).

lar incantation: the type of formula in use on amulets and in Pliny's writings could have been employed orally from the Hellenistic period onwards.⁴³

One can also suggest that their use dates from the Classical period, given the allusion in Aeschylus and the antiquity of Apollo's oracular role in Greece. The magical-medicinal use of his oracles (and perhaps the texts imitating them) seems in any case to have been common in the Roman world, since in the second century A.D., Lucianus shows Alexander of Abonoteichus diffusing an oracle throughout the empire, that many put on their doors during the Antonine Plague:

Φοῖβος ἀχειρεχόμης λοιμοῦ νεφέλην ἀπερύκει (Lucianus *Alex.* 36.10).

Long-haired Phoebus chases the cloud of pestilence.

This verse seems very close to Pliny's formula, even if it has no verb expressing an order and it is conceivable that such uses existed as early as Classical Greece.

Pliny also conveys a hexametric incantation in Greek of a well-known type, a "flee" formula which accompanies the use of a stone pressed against a skin disease, impetigo:

Φεύγετε, κανθαρίδες, λύκος ἄγριος ὑμμε διώκει.

Flee, cantharides, the wolf of the fields is pursuing you.⁴⁴

In this type of formula the structure is: order to flee, name of the illness targeted, threat or pursuit by an animal, a hero or a divinity. Could this type of *carmen* date back to the Classical era?

There are perhaps two ancient models of "flee" formulas that existed before Pliny, as attested by two sources.⁴⁵ The first is a lead tablet from Phalasarna (Crete) dating from the end of the fourth or the beginning of the third

43 On all these points, see Faraone (2009: 235–243).

44 Plin. *Nat.* 27.100: *Lapis uulgaris iuxta flumina fert muscum siccum, canum. Hic fricatur altero lapide addita hominis saliuu; illo lapide tangitur impetigo. Qui tangit, dicit: Φεύγετε, κανθαρίδες, λύκος ἄγριος ὑμμε διώκει* ("The ordinary stone near rivers bears a dry, white moss. It is rubbed with another stone, adding human saliva; the impetigo is touched with the second stone. The person that touches it says: flee, cantharides, the wolf of the fields is pursuing you").

45 Kotansky (1991), Furlley (1993), Faraone (2000: 197–200).

century B.C., probably worn as an amulet. It contains a long charm in hexameter that begins as follows:

Ἀγγελίαν (?) ἀνά ΓΑ[~~~τ]ῶνδε κελεύω
 [φε]ύγ[εμε]ν [ήμ]ετέρων οἴκων [~~]ων [ά]π[ό]--.
 Ζήνα τ' ἀλεξίκακον καὶ Ἡρακλέα πτολίπορθον,
 Ἰατρὸν καλέω καὶ Νίκην καὶ Ἀπόλλω[να].
 αἰαί ἐγὼ δ' ἔλκει Τέτραγος ΠΥΞΥΤΥΑΙΤΑΓΑΛΙΣ
 "Επαφος, "Επαφος, "Επαφος, φεύ[γ'], ἅμα φεύγε, λύκαινα·
 φεύγε, κύων, ἅμα σ<ύ>, καὶ ΠΡΟΚΡΟΠΡΟΣΑΤΕ (vac.) σύνοικος.
 μαϊνόμενοι δ<ρ>άντων πρὸς δώματα αὐτοῦ ἕκαστος.

... I command you to flee from these houses of ours ... I call on Zeus the adverter of ill, Heracles the sacker of cities, Iatros, Nike, Apollo (a line with an obscure meaning, which seems to include the genitive Τέτραγος from one of the *Ephesia grammata*, τέτραξ), Epaphus, Epaphus, Epaphus, flee, flee at once, she wolf, flee dog at once, you also PROKROPROSATE associate (?). Raving let them run, each to his own home.⁴⁶

This formula seems to target a disease because it requires the help of gods, some of whom were associated with medicine;⁴⁷ it includes the same command (Φεύγε, "flee") as in Pliny's formula. It addresses Epaphus, here undoubtedly the son of the Night and of Erebus, a she-wolf and a dog, probably representing the illness, and a poorly identified PROKROPROSATE.⁴⁸ The next part of the text also mentions a goat.

The second example appears in one of the oldest Greek magical papyri, the Philinna papyrus, from the first century B.C. (*PGM* 20.13–18):

Φιλίννης Θε[σσ]αλῆς ἐπαιδὴ π[ρὸς]
 Κεφαλῆς π[ό]νον.
 Φεύγ' ὀδύν[η κ]εφαλῆς, φεύγε φθ[ίνουσ']
 ὑπὸ πέτ[ρα]ν φεύγουσιν δὲ [λύ]

46 Guarducci (1939: 223–225, n° 7), Jordan (1992); the text adopted is that of Jordan. Bibliography: see Faraone (1992: 44–48), Furlley (1993), Kotansky (1995).

47 Faraone (1992: 44–48), Furlley (1993: 96–97); Apollo was a doctor/god and Iatros ("doctor") designates here either a hero, or more likely Asclepius. Zeus and Heracles were also occasionally associated with medicine.

48 *Prokroprosate* is sometimes associated with a thieving demon by changing the name to *Prokloposate*; see Guarducci (1939), Furlley (1993: 97).

κοι, φεύγ[ουσι] δὲ μώνυχες [ἴπ]
 ποι, ἐ[σσύμενοι] πλῆγαίς ὑπ'[ἐμῆς τελέας ἐπαοιδῆς]⁴⁹

The incantation of Philinna the Thessalian for headache: flee, headache, flee in weakness under a rock! Wolves flee and single-hoofed horses flee [propelled] with blows [by my perfect incantation] (trans. by Faraone [2000: 197–198] modified).

The structure is not completely canonical, but there seems to be an underlying identification between headaches and wolves and horses, the threat being represented by the incantation itself.

Faraone notes that a similar non-versified formula was reported by Aristotle of whom a fragment (496 R.) indicates that when a pestilence struck Boeotia and many crows came, people caught them, purified them and let them go while singing to the plague:

Φεύγ' εἰς κόρακας.

Flee to the crows.⁵⁰

When animals were indeed present, however, they were part of a rite where the disease was transferred to and then carried away by them, an act which implies neither identification nor threat and does not correspond to the same type of rite (here, εἰς means “in”).⁵¹

Furthermore, the Eastern influence on “flee” formulas is difficult to pinpoint. Ancient Near Eastern parallels of ordering harmful demons to flee exist⁵² and their influence surely came into play for the Phalasarna amulet and the Philinna papyrus. In addition, these two sources do not present the structure and all the characteristics of “flee” formulas which could have been a later product of a more direct Eastern influence.

49 Revised text by Henrichs (1970: 204–209). See also Maas (1942: 34), Lloyd-Jones/Parsons (1983: n° 900), Furley (1993: 93–94). Bibliography: see de Haro Sanchez (2010: n° 1871).

50 Faraone (2000: 199).

51 See Marcell. *med.* 12.24, 29.35 and p. 210–211 for the use of εἰς, when transferring.

52 See the Northern Semitic incantations of the seventh century B.C. on plaques from Arslan Tash; Gibson (1982: n° 23, l. 21–22; 28–29: “From the dark chamber pass now, now, night demons! From the house begone outside! . . . Pass on and for all time fly away”; n° 24, l. 8: “Flee, caster of the evil eye”).

After Pliny, “flee” formulas appear on gems or in medical texts. Following the order to flee, the disease is named; normally, the threat is personified by a hero or a god and the formula is in itself the cure.⁵³ There are few exceptions. Marcellus recommends the use of an amulet on parchment to alleviate uvula pain (*Med.* 14.67), with a play on words for *uua*, “grape” and “uvula,” and *cancer*, “crab” and “cancer”:

Fuge, uua, ne cancer te comedat.

Flee, uvula, so that cancer will not eat you.

Alexander of Tralles (8.2 [2.377.20–21 P.]) indicates that one should engrave the following on an iron ring to combat colic:

Φεῦγε, φεῦγ', ἰοῦ χολή, ὁ κορυδαλ(λ)ός σε ζητεῖ (Meineke lesson).

Flee, flee, poison of bile, the crested lark⁵⁴ is looking for you.

Marcellus (*Med.* 8.193) imparts a formula which calls for touching sties with barley while saying:

Φεῦγε, φεῦγε, κριθή σὲ διώκει.⁵⁵

Flee, flee, the barley is pursuing you.

The animal element is thus seldom present in the examples after Pliny, but it is not clear that this provides an argument for the antiquity of Pliny's formula—notably in comparison with possible precedents. Impetigo, a skin disease with bursting blisters, is identified with blister beetles, beetles that

53 Gems: Perseus against gout (Heim [1893: n° 59], Bonner [1950: 75–76]); Herakles against bile (Heim [1893: n° 60], Bonner [1950: 62–64]); see also Bonner (1950: 78) and Heim (1893: n° 61, n° 62, n° 63). Texts: *Plin. med.* 3.15.7 (Solomon against quartan fever), Ps.-Theod. Prisc. *add.* p. 282.19 R. (Liuor Pater against erysipelas), Ps.-Theod. Prisc. *add.* p. 303.15 R. (Christ against pain). Mediaeval Latin examples: see Önnersfors (1985: 240, n° 21, n° 36).

54 The lark is a specific treatment for the colon.

55 I have adopted the text closest to the manuscripts, the Niedermann edition inserting another κριθή, after φεῦγε. Heim (1893: n° 58) proposed the reading Φεῦγε, φεῦγε, κριθή, κρείων σὲ διώκει (“Flee, flee, stye, the strongest is pursuing you”). The Greek κριθή means “barley” and “stye,” the Latin *hordeus* “barley” and the diminutive *hordeolus* “stye”.

produce the substance cantharidin, which is noxious to animals and can cause sores in humans (hence their name). This explains the impetigo-blister beetle identification.⁵⁶ Edmonds offered the explanation⁵⁷ that in this case the wolf could be a spider known as “wolf” in Greek.⁵⁸ I believe it credible because certain spiders develop a natural immunity to cantharidin and are thus likely predators of blister beetles.⁵⁹ In addition, Nicander (*Ther.* 734–735) mentions a spider resembling the wolf spider and calls it ἀγρώστης, which is generally understood to mean “hunter,” although the term means “country dweller” for the tragedians.⁶⁰ In this case it applies to a spider living in the fields (not in houses), like the wolf spider. It brings to mind the ἄγριος (“from the fields, wild”) of the formula in question, which, by way of this adjective, introduces a certain redundancy perhaps in order to confirm that it did not refer to a wolf.⁶¹ Finally, it is more logical to invoke a spider to chase an insect than a wolf. The disease was thus identified with very different animals than those of Phalasarna and the Philinna papyrus. In these formulas the animal threat does not appear and in the former the pursuit is the work of deities. Furthermore, there seems to be no belief in theriomorphic demons in Pliny's *carmen*, but rather a cure based on the action of “like by like.”

In addition, Edmonds emphasises that the form ὤμμε (“you”) in the incantation (instead of ὑμᾶς “you”) is Aeolian, which would imply a date prior to the time of Alexander the Great.⁶² But ὤμμε was mostly a poetic form besides in use after Alexander's time. What's more it is a restoration in the *Natural History* because the manuscripts giving the formula in Latin characters use *hema*. ὤμμε is more suitable for reasons of metre, but the aspiration and the ‘a’ in *hema* rule out the exclusion of ὑμᾶς.⁶³ Furthermore, Faraone considers the attribution of the *PGM* XX incantation to a Thessalian to be a clue to an ancient Greek origin rather than a desire to associate the incantation with a land of

56 The varieties described by the ancients correspond to *Meloidae*, especially of the genus *Mylabris*, used as remedies until the nineteenth century. See Beavis (1988: 51–52).

57 Edmonds (1940²: 542–544, n° 38a, sp. 543 n. 4).

58 “Wolf spiders” in ancient writings are generally identified with *Lycosidae* or, for some, with the genera *Segestria*, *Agelena* or *Theridium* (Beavis 1988: 168–170).

59 Thivent (2005: 49).

60 Jacques (2003: 203–204 n. 80).

61 Aristotle (*HA* 5.27) also writes of λειμώνια ἀράχνη (“meadow spiders”) that some identify as wolf spiders (Beavis 1988: 36).

62 Edmonds (1940²: 542 n. 3).

63 The correction dates back to the edition of Caesarius (Cologne 1624). Dalechamp and Sillig prefer αἷμα (“blood”)—very well suited in terms of meter—but which can be ruled out by the usual structure of these formulas.

magic.⁶⁴ For Dickie, Philinna could even be the mother of a bastard of Philip II, Arrhidaeus,⁶⁵ which would refer to the Classical period. This would also argue for the antiquity of Pliny's incantation if it is derived from formulas similar to that of Philinna, but such theories have not been proven.

Two aspects of the Plinian *carmen* are particularly noteworthy: it accompanies a therapeutic gesture and Pliny does not translate it as he does for all the others. These two points are also true of the sty incantation found in Marcellus' writings where, in addition, there is no pursuit by a deity but an action of "like by like." One wonders if this is not a slightly different therapeutic tradition to the one expressed in other formulas mentioning a deity, where the dimension of exorcism is more prevalent. Perhaps the source is different from Pliny's other sources, closer to classic traditions, thus explaining the lack of translation. This *carmen* may date back to Classical Greece, although one cannot be certain.

Two-thirds of the magical formulas in Pliny's writing thus have discernible origins. Only two are Latin. The majority are linked to Greek sources, where the role of Hellenistic apocrypha appears dominant in the nine formulas ascribed to *magi* and the formula also presented in the *Cyranides* and the *Geoponica*. The only author named, Attalus III, also appears to have perfected medicines appreciated by doctors. The precise origin of the incantation he cites, dating from at least the second century B.C., cannot be established. Finally, one *carmen* probably dates back to a model existing in Classical Greece, which is likely true even for one of the incantations in Greek. The Greek influence seems decisive, with an important role being played by apocrypha linked to the sympathies-antipathies and pseudo-Democritus trend. If the Italian population at the time of Pliny truly employed the *carmina* he cites, it was due to the impact of this influence rather than to the maintenance of more ancient local traditions.

Bibliography

- André, J. (1970), "Deux notes sur les sources de Virgile," *Revue de philologie, de littérature et d'histoire anciennes* 44, 11–17 (1. Virgile et Démocrite).
- Arias Abellán, C. (ed.) (2006), *Latin vulgaire–Latin tardif* 7 (Actes du 7^e colloque international sur le latin vulgaire et tardif, Séville, 2–6 septembre 2003), Seville.
- Baldin, M./Cecere, M./Crismani, D. (eds.)/Sconocchia, S./Cavalli, F. (dir.) (2004), *Lingue tecniche del greco e del latino*, 4. *Testi medici latine antichi. Le parole della medicina*.

64 Faraone (2000: 210).

65 Dickie (1994).

- Lessico e storia* (Atti del settimo convegno internazionale, Trieste, 11–13 ottobre 2001), Bologna.
- Beavis, I.C. (1988), *Insects and Other Invertebrates in Classical Antiquity*, Exeter.
- Bidez, J./Cumont F. (1938), *Les mages hellénisés. Zoroastre, Ostanès et Hystaspe d'après la tradition grecque*, 1, Paris.
- Bonner, C. (1950), *Studies in Magical Amulets, Chiefly Graeco-Egyptian*, Ann Arbor.
- de Haro Sanchez, M. (2010), *Catalogue des papyrus iatromagiques*, Liège, (updated in 2010) (www.cedopal.ulg.ac.be).
- Devillers, O./Krings, V. (1996), "Autour de l'agronome Magon," *L'Africa romana* 11.1, 489–515.
- Dickie, M.W. (1994), "The Identity of Philinna in the Philinna Papyrus (PGM² XX.15; SH 900.15)," *Zeitschrift für Papyrologie und Epigraphik* 100, 119–122.
- Edmonds, J.M. (1940²), *Lyra graeca*, 3, London/Cambridge MA, (1927¹).
- Faraone, C.A. (1992), *Talismans and Trojan Horses: Guardian Statues in Ancient Greek Myth and Ritual*, Oxford.
- (2000), "Handbooks and Anthologies: The Collection of Greek and Egyptian Incantations in Late Hellenistic Egypt," *Archiv für Religionsgeschichte* 2.2, 195–214.
- (2009), "Stopping Evil, Pain, Anger, and Blood: The Ancient Greek Tradition of Protective Iambic Incantations," *Greek, Roman and Byzantine Studies* 49.2, 227–255.
- /Obbink, D. (eds.) (1991), *Magika Hiera: Ancient Greek Magic and Religion*, New York/Oxford.
- Ferraces Rodríguez, A. (2006), "Notas críticas y léxicas al capítulo *De puero* [et] *uirgine* del *Liber medicinae ex animalibus* de Sexto Plácido," in: Arias Abellán (ed.), 253–265.
- (2010), "La restitución del texto de dos fórmulas mágicas del *Liber medicinae ex animalibus* de Sexto Plácido (Plac. med. 17.11 rec. β; med. 17.19 rec. β)," in: Garofalo/Fortuna/Lami/Roselli (eds.), 33–43.
- (2012), "El capítulo *De puero uirgine* (o *De homine*) del *Liber medicinae ex animalibus* de Sexto Plácido. Estudio, nueva edición crítica y traducción," *Medicina nei secoli* 24.2, 339–378.
- French, R.K./Greenaway, F. (eds.) (1986), *Science in the Early Roman Empire: Pliny the Elder, His Sources and Influence*, London.
- Furley, W.D. (1993), "Besprechung und Behandlung. Zur Form und Funktion von ΕΠΙΩΔΙΑΙ in der griechischen Zaubermedizin," in: Most/Petersmann/Ritter (eds.), 80–104.
- Gaillard-Seux, P. (2003), "Sympathie et antipathie dans l'*Histoire Naturelle* de Plinie l'Ancien," in: Palmieri (ed.), 113–128.
- (2004), "La place des incantations dans les recettes médicales de Plinie l'Ancien," in: Baldin/Cecere/Crismani (eds.)/Sconocchia/Cavalli (dir.), 83–98.

- (2009), "Un pseudo-Démocrite énigmatique. Bolos de Mendès," in: Le Blay (ed.), 223–243.
- Garofalo, I./Fortuna, S./Lami, A./Roselli, A. (eds.) (2010), *Sulla tradizione indiretta dei testi medici greci* (Atti del terzo Seminario internazionale di Siena-Certosa di Pontignano, 18–19 settembre 2009), Pisa.
- Gibson, J.C.L. (1982), *Textbook of Syrian Semitic Inscriptions, 3: Phoenician Inscriptions Including Inscriptions in the Mixed Dialect of Aslan Tash*, Oxford.
- Guarducci, M. (1939), *Inscriptiones Creticae, 2. Tituli Cretae occidentalis*, Rome.
- Guignard, C. (2009), "Sources et constitution des *Géoponiques* à la lumière des versions orientales d'Anatolius de Béryte et de Cassianus Bassus," in: Wallraff/Mecella (eds.), 243–344.
- Heim, R. (1893), "Incantamenta magica Graeca Latina," *Jahrbücher für classische Philologie*, suppl. 19, 463–576.
- Henrichs, A. (1970), "Zum Text einiger Zauberpapyri," *Zeitschrift für Epigraphik und Papyrologie* 6, 193–212.
- Heurgon, J. (1976), "L'agronome carthaginois Magon et ses traducteurs en latin et en grec," *Comptes rendus de l'Académie des Inscriptions et Belles-Lettres* 3, 441–456.
- Jackson, F./Lake, K. (eds.) (1933), *The Beginnings of Christianity*, 5, London.
- Jacques, J.-M. (2002), *Nicandre, Œuvres, 2. Les Thériaques*, Paris.
- Jones, W.H.S. (1951), *Pliny's Natural History*, vol. 6, Books 20–23, London/Cambridge MA.
- (1956), *Pliny's Natural History*, vol. 7, Books 24–27, London/Cambridge MA.
- (1963), *Pliny's Natural History*, vol. 8, Books 28–32, London/Cambridge MA.
- Jordan, D.R. (1992), "The Inscribed Lead Tablet from Phalasarna," *Zeitschrift für Papyrologie und Epigraphik* 94, 191–194.
- King, C.W. (1873), *Early Christian Numismatics and Others Antiquarian Tracts*, London.
- Kotansky, R.D. (1991), "Incantations and Prayers for Salvation on Inscribed Greek Amulets," in: Faraone/Obbink (eds.), 107–137.
- (1995), "Greek Exorcistic Amulets," in: Meyer/Mirecki (eds.), 243–277.
- Kudlien, F. (1965), "Zum Thema 'Homer und die Medizin,'" *Rheinisches Museum für Philologie* 108, 293–299.
- Le Blay, F. (ed.) (2009), *Transmettre les savoirs dans les mondes hellénistique et romain* (Actes du colloque "Doctrinarum disciplina". La transmission des savoirs dans les mondes hellénistique et romain," Nantes, mars 2007), Rennes.
- Lelli, E. (2010), *L'agricoltura antica, I. Geoponica di Cassiano Basso*, Rome.
- Leven, K.-H. (ed.) (2005), *Antike Medizin. Ein Lexikon*, Munich.
- Lloyd-Jones, H. (1979), *Aeschylus. Oresteia*, Berkeley.
- /Parsons, P. (1983), *Supplementum Hellenisticum*, Berlin.
- Maas, P. (1942), "The Philinna papyrus," *Journal of Hellenic Studies* 62, 33–38.
- Meana, M.J./Cubero, J.I./Sáez, P. (1998), *Geopónica o extractos de agricultura de Casiano Baso*, Madrid.

- Meyer, M./Mirecki, P. (eds.) (1995), *Ancient Magic and Ritual Power*, Leiden.
- Most, G.W./Petersmann, H./Ritter, A.M. (eds.) (1993), *Philanthropia kai Eusebeia* (Festschrift für Albrecht Dihle zum 70. Geburtstag), Göttingen.
- Nock, A.D. (1933), "15. Paul and the Magus," in: Jackson/Lake (eds.), 164–188 (= Nock [1972: 308–330]).
- (1972), *Essays on Religion and the Ancient World*, 1, selected and edited, with an Introduction, Bibliography of Nock's writings, and Indexes, by Stewart, Z. (ed.), Oxford.
- Önnerfors, A. (1985), "Iatromagische Beschwörungen in der *Physica Plinii Sangallensis*," *Erano* 83, 235–252.
- Oser-Grote (2005), "Archigenes," in: Leven (ed.), 80.
- Palmieri, N. (ed.) (2003), *Rationnel et irrationnel dans la médecine antique et médiévale. Aspects historiques, scientifiques et culturels* (Actes du colloque international sur les textes médicaux antiques et médiévaux, Saint-Étienne, 14–15 novembre 2002), Saint-Étienne.
- Scarborough, J. (1986), "Pharmacy in Pliny's *Natural History*: Some Observations on Substances and Sources," in: French/Greenaway (eds.), 59–85.
- Thivent, V. (2005), "La cantharidine, une arme aphrodisiaque," *La Recherche* 386.5, 48–50.
- Wallraff, M./Mecella L. (eds.) (2009), *Die "Kestoi" des Julius Africanus und ihre Überlieferung*, Berlin/New York.
- Wellmann, M. (1907), "Xenokrates aus Aphrodisias," *Hermes* 42, 614–629.
- (1916), "Pamphilos," *Hermes* 51, 1–64.
- (1928), "Die Φυσικά des Bolos Demokritos und der Magier Anaxilaos von Larissa," *Abhandlungen der preussischen Akademie der Wissenschaften* 7, 3–80.

On Analgesic and Narcotic Plants: Pliny and His Greek Sources, the History of a Complex Graft

Valérie Bonet

Abstract

Grafting is an important concept in the study of Pliny the Elder, who is a compiler of written sources. We intend to examine how this grafting works in Pliny's discussion of analgesic and narcotic plants, especially the most famous: opium poppy, henbane, mandrake, and hound's berry. We will study Pliny's use of Greek sources and ask how he took up his predecessors' works while integrating the changes that took place during the centuries in the diagnosis and treatment of pain. This cultural graft remains elusive because we do not have access to all of Pliny's Greek sources. When Pliny speaks about these plants, he sometimes copies out information, adding or removing details, and occasionally makes significant mistakes. The graft was particularly difficult in this case because these analgesic plants were considered so special and poisonous that they were sometimes rejected or even condemned. Nevertheless, we can say that this cultural graft succeeded, despite some obstacles, because Pliny assimilated and adapted these old Greek materials to his own time, society, and project.

In his *Natural History*, Pliny says of the plant graft:

Facillime coalescunt quibus eadem corticis natura quaeque pariter florentia eiusdem horae cognationem suorumque societatem habent; lenta res est, quotiens umidis repugnant sicca, mollibus corticum duri (Plin. *Nat.* 17.104).

Grafts and trunk grow together most easily when they have the same kind of bark and when they flower at the same time, so that they have the affinity of the same season and a partnership of juices; whereas it is a slow business when there is incompatibility between dry tissues and damp ones, and between hard and soft barks (trans. by Rackham).

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Specific conditions are thus necessary for the graft to take. What would the grafting process between Greek and Roman medicine be like when it comes to medical botany? At first glance, it seems that the Romans, most of whom were peasants, were better prepared for the introduction of Greek medical botany, or of more-or-less universal prescientific principles such as sympathy, antipathy, and signature, than to surgery, for example. This can also help to explain the diversity and contradictions in Pliny's account of Greek medicine. In this study, we have tried to link the notion of grafting Greek and Roman medicine with research on analgesic and narcotic plants. We have decided to restrict ourselves to four plants whose significance has been proven in this medical field by a number of studies.¹ These plants include one Papaveraceae, viz. opium poppy, and three Solanaceae, viz. henbane, mandrake, and hound's berry, which have filled witches' baskets throughout history. The ancient opium poppy is our *Papaver somniferum* L. Pliny mentions this plant, describing "two species of cultivated poppy," which are the varieties we identify by the colour of their seeds (dark grey for black poppy; white for white poppy). The three other plants belong to the great family of the Solonaceae. Pliny also knows a female and a male mandrake which correspond to two species of the genus *Mandragora* L.—*Mandragora autumnalis* Spr. and *Mandragora uernalis* Bert. He describes four species of henbane, which have been identified as various species of the genus *Hyoscyamus* L.,² including white henbane (*Hyoscyamus albus* L.), black henbane (*Hyoscyamus niger* L.), and golden henbane (*Hyoscyamus aureus* L.).

The case of the fourth plant is slightly more complex. The phytonym *Strychnos* actually designates hound's berry (*Solanum nigrum* L.), which has been used, from Hippocrates onward, to soothe pain;³ but that name covers also other often toxic and sometimes soporific plants. Pliny identifies four species in the section devoted to *Strychnos*,⁴ and actually adds datura (*Datura stramonium* L.), bladder cherry (*Physalis alkekengi* L.) (the only one which is not actually toxic), and withania (*Withania somnifera* Dun.) to hound's berry.

According to Pliny, hound's berry, opium poppy, henbane, and mandrake all have analgesic and/or narcotic properties. He explains that opium, a famous narcotic, is obtained from black poppy, while white poppy, drunk with wine, induces sleep.⁵ The sap of henbane cures ear pain and chewing its roots

1 E.g. Gourevitch (2001); Moisan (1990).

2 André (1985: 127)

3 Moisan (1990: 384–385).

4 Plin. *Nat.* 21.177–182.

5 Plin. *Nat.* 20.198–201.

soothes toothaches.⁶ Eye and joint pain⁷ can be fought with mandrake, and Pliny advises its use as an anaesthetic to induce numbness during certain medical operations:

Bibitur et contra serpentes et ante sectiones punctionesque, ne sentiantur (Plin. *Nat.* 25.150).

It is also taken in drink for snake bite, and before surgical operations and punctures to produce anaesthesia (trans. by Jones).

Pliny advises the use of hound's berry against headaches and renal pains⁸ and describes withania as a narcotic.⁹ The various qualities of these plants are known in every Greek and Latin medical text, and Pliny is not the only one to present them as dangerous. The fiendish reputation that most of these plants, especially henbane and mandrake, had in ancient times and after is well-known—they are present in the composition of poisons and love potions or used in magic rituals. The root of the mandrake aroused all manner of fancy, and henbane, with its ill-defined colours, became the companion of witches.

The Notion of Graft Applied to Plant Pharmacopeia

An author such as Pliny the Elder, who acts as a compiler and works essentially from written sources, gives full significance to the notion of graft. Furthermore, his methods of work, which are a long-lasting source of interest for the Plinian critic,¹⁰ and especially the mistakes he makes in providing the information gathered from these sources, perfectly match the idea of graft. But how does grafting operate with such specific plants? Many details of this process remain elusive. We would need to know every Greek source listed by Pliny, but they often are only names to us. The only of Pliny's Greek botanical sources entirely available to us is that of Theophrastus. Unfortunately, Pliny's other sources on plant botany and medicine have totally disappeared.

6 Plin. *Nat.* 25.164; Plin. *Nat.* 25.165.

7 Plin. *Nat.* 25.147.

8 Plin. *Nat.* 27.68.

9 Plin. *Nat.* 21.180.

10 Some critics substantiate the existence of this file with mistakes made by Pliny which can be explained by confusions between the cards. Cf. André (1959); Nass (2002: 108).

In his preface, Pliny acknowledges his debt to his precursors. He has widely used Greek sources to build up his work,¹¹ he depends upon them,¹² and, generally, he acknowledges the Romans' dependence on the Greeks.¹³ But at the same time, he claims that he brings something new and original.¹⁴ The way he uses his Greek sources conditions the graft and explains how, in his own words, he makes something new from something old. Above all, what Pliny means to do is to record all the knowledge of his time and aim at exhaustiveness and usefulness. His work thus gathers all the knowledge and presents it in an orderly manner. But the exhaustiveness which makes for Pliny's originality obviously depends on his sources.¹⁵ To assess the grafting process, the difference of status between the graft and the grafted must be considered. Pliny is neither Hippocrates nor Theophrastus; the three authors do not have the same perspective. Pliny follows Theophrastus, who was above all a botanist, and tackles medical issues with a certain detachment.¹⁶ Pliny's descriptions tend to be perfunctory;¹⁷ they are often limited to the indications he considers sufficient. On this point he moves away from the exacting recommendations of Theophrastus, who had proposed a rigorous method for the adequate study of a plant. While Theophrastus briefly mentions the extraction of opium, it is to Pliny that we owe the more detailed information.¹⁸ Theophrastus tackles the issue as a botanist: he gives many more descriptive details about the plant than Pliny, whereas the medical effects are less important to him.

Now, there is another question of interest: between Greek and Latin, Pliny and his sources, where is the scion (or graft) and where is the stock (or grafted)? Whether we take up the metaphor of plant or medical graft, this question has to be asked. There are two ways to consider the graft of medical botany: on the one hand, it can be said that Roman medicine has been grafted upon Greek medicine. This view on the process of grafting follows the historical evolution of science: the Greeks predate the Romans, so Roman medicine follows Greek medicine and goes further. On the other hand, Greek medicine may provide the scions. The problem then is that the stock is hard to identify. It seems to

11 Cf. Serbat (1987: 276).

12 Bonet (2009).

13 See, for example, on this point: Langslow (2000: 29–30); on the relation between Pliny and Greek medicine, see also Beagon (1992: 202–204).

14 Plin. *Nat. Praef.* 14.

15 Bonet (2009).

16 On Theophrastus' working methods, see Amigues (1999: 124–154).

17 Ducourthial (2003: 62).

18 Thphr. *HP* 9.8.2 and Amigues (ed.), *Théophraste, Recherches sur les Plantes*, Book 9, p. 120, note 7.

me that the graft induces two autonomous elements, yet we are not sure that there is an autonomous, independent Latin Roman medical tradition (aside from an oral popular medicine of which we have no written evidence, maybe). Though Pliny does use Latin sources for the plants (Cato, Varro, for example), do not they themselves derive from Greek sources? If we assume that Greek medicine provides the scions, it means that Pliny has grafted the Greek sources upon something else; but on what? Can we do anything but deduce the nature of the stock from the lack of evidence of Greek sources? Roman medicine can be seen as an evolution of Greek medicine, in which case it would be a “biological mutation” rather than a graft. On the other hand, it is clear that Pliny has a project of his own and makes his own comments; we can also consider that it is on this well-defined project that he has grafted the information dug up from his Greek sources.

Whatever the graft, the process can be simple or much more complex. The case of henbane,¹⁹ for example, is extremely complex. Pliny uses the phytonym *hyoscyamus* to identify this plant. But this designation diverges from Theophrastus, who does not mention any plant called ὕοσχύαμος (*hyoscyamos*).²⁰ Yet this word is to be found in older texts such as the *Hippocratic Corpus*, for example. This, therefore, is a case in which Pliny has followed the medical sources rather than Theophrastus. Henbane was the most widespread and dangerous poisonous plant across the Greek world, so it is unthinkable that Theophrastus did not mention it.²¹ S. Amigues has discovered that in his text henbane bore the name of ἀκόνιτον (*akoniton*).²² A very tenuous link between the ὕοσχύαμος (*hyoscyamos*) of the medical text and the ἀκόνιτον (*akoniton*) of Theophrastus is only created by the mention of the toxicity of the root.²³ It seems that Pliny failed to see that Theophrastus' ἀκόνιτον (*akoniton*) was henbane.

But the graft can also be very simple and visible. Those simpler grafts are identified and the stitches are visible. Pliny himself indicates the borrowings. He relies heavily on these references in his section on opium poppy, for

19 About this plant, see, for instance, Gaide (1995: 115–126).

20 Neither Aristotle nor Nicander have it besides: cf. Amigues (2002: 174).

21 Cf. Amigues (2002: 174).

22 Thphr. *HP* 9.16.4–5; Thphr. *HP* 9.16.7 and Amigues (ed.), *Théophraste, Recherches sur les plantes*, Book 9, pp. 201–203, notes 13–15; cf. Amigues (2002: 161–184); the medical texts naming the henbane ὕοσχύαμος (*hyoscyamos*), do not mention any ἀκόνιτον (*akoniton*) that could be identified with that of Theophrastus.

23 The ἀκόνιτον (*akoniton*) section of Theophrastus' text has nothing to do with Pliny's *hyoscyamus* article. Theophrastus describes the plant, its geographical distribution, its toxicity and its utilisation as a lethal poison. He also mentions the lethal principle of its root; Pliny thought it too hazardous to use the root of the henbane.

example. He says that Diagoras of Cyprus and Erasistratus had condemned opium because it damaged the eyesight. Diagoras was the origin of the idea that if one slits the stem, the black poppy will produce a soporific when the calyx is formed. For Iollas, on the other hand, the auspicious moment is when the flower fades on a cudless day after the dew has dried.²⁴ We are not to go back over the significance of these references; it has been studied several times and is not the purpose of this study.²⁵ But in this particular case, the danger of the products studied helps explain the need to rely on identified Greek authorities.

However, in the *Natural History*, Pliny does not directly mention his sources very frequently, not even Theophrastus, who is cited only seven times. Yet Pliny readily uses the text of *On the History of Plants*, sometimes even copying whole passages. This is understandable, as he praises Theophrastus's qualities:

cuncta magna cura persecutus CCCXC annis ante nos (Plin. *Nat.* 19.32).

He has given an extremely careful account of all plants at a date of 390 years before our time (trans. by Rackham).

Likewise, Theophrastus's spirit is obviously with him when he says:

modo ne sit fastidio Graecos sequi tanto maiore eorum diligentia uel cura uetustiore (Plin. *Nat.* 7.8).

Only do not let us be too proud to follow the Greeks, because of their far greater industry or older devotion to study (trans. by Rackham).

Pliny is also ready to acknowledge Roman backwardness:

Sunt et alia genera nominibus Graecis indicanda, quia nostris maiore ex parte huius nomenclaturae defuit cura (Plin. *Nat.* 21.52).

There are other kinds also that can be indicated only by their Greek names, because our countrymen for the most part have paid no attention to this nomenclature (trans. by Jones).

Thus, Pliny acknowledges his dependence on the Greeks.

²⁴ Plin. *Nat.* 20.198; Plin. *Nat.* 20.200.

²⁵ See for instance André (1955); Serbat (1973); Naas (2002); Mudry (2004).

Theophrastus's ideas loom unaltered from Pliny's text. Some details of the picking rites of mandrake are directly copied from Theophrastus:

Effossuri . . . tribus circulis ante gladio circumscribunt, postea fodiunt ad occasum spectantes (Plin. *Nat.* 25.148).

The diggers . . . first trace round the plant three circles with a sword, and then do their digging while facing the west (trans. by Jones).

These words are inspired by Theophrastus's sentence:

Περιγράφειν δὲ καὶ τὸν μανδραγόραν εἰς τρεῖς ξίφει, τέμνειν δὲ πρὸς ἑσπέραν βλέποντα (Thphr. *HP* 9.8.8).

Thus it is said that one should draw three circles round mandrake with a sword, and cut it with one's face towards the west (trans. by Hort).

When he takes up Theophrastus, not only does Pliny reproduce a magical tradition, but he symbolically underlines the sedative and narcotic power of the plant. Indeed, the west toward which turns the picker is the place where the sun sets, and as such, it is associated with sleep and death,²⁶ like the plant.

Awkward or Failed Grafts

Sometimes, however, the graft does not work well. It elicits a few rejections, such as the condemnation of some Greek physicians, and a few difficulties, including mistakes by Pliny himself. Critics have often mentioned his mistakes.²⁷ We must also consider that some mistakes are due to the condition of the manuscripts consulted by Pliny. The graft thus sometimes involves "failures," leading to some kind of confusion. Writing about the various species of henbane, Pliny states that physicians have opted for those with white and red seeds.²⁸ The problem is that Pliny never mentioned any variety with red seeds when he described those species, unlike Dioscorides, who includes this henbane within the three

²⁶ See Amigues (ed.), *Théophraste, Recherches sur les plantes*, Book 9, p. 128, note 27.

²⁷ With regard to botany we will mention specifically J. André's articles: André (1955), André (1959).

²⁸ Plin. *Nat.* 25.36.

varieties he identifies.²⁹ It follows that there is some confusion in Pliny's text, which seems at times somewhat rambling. Since it is not clear which species he alludes to when he mentions those red seeds, and if we surmise that both Pliny and Dioscorides were using the same source, maybe Sextius Niger, it is reasonable to say that Pliny has been less meticulous in using his source; therefore, the graft seems shaky and the text is less articulate.

Pliny's graft of *datura* is also a failure. This beautiful plant can measure up to seven feet in height and has eight-inch long leaves and large solitary funnel-shaped flowers. It is the most dangerous of the Solanaceae: it can be toxic for the heart in particular and provokes raving hallucinations.³⁰ First, Pliny apparently confuses the synonyms. He mentions *erythron* as one possible phytonym for the *datura*.³¹ Yet, the etymology of this word (from ἐρυθρός [*erythros*], meaning "red") does not fit the *datura* because its flower is generally white, its fruit green, and its seeds black.³² On the other hand, it could designate bladder cherry which conceals its fruit in a red or orange bladder (hence its name) or Indian ginger because of its red fruit. So Pliny attributes to a plant a colour which cannot belong to it. Dioscorides,³³ who mentions the same synonyms as Pliny, calls the *datura* θρύον (*thryon*) and not ἐρυθρόν (*erythron*), incidentally following Theophrastus; S. Amigues interprets the phytonym as meaning "thyrsus weed," which applies to the fruit of the *datura*.³⁴ It is possible that Pliny misread Theophrastus or that he mixed up his sources and confused the synonyms.

There is however one obvious misreading by Pliny in the description of the *datura*: he depicts its leaves as similar to those of the basil,³⁵ which does not correspond to the plant. Now, Dioscorides³⁶ also mentions it, but evokes the leaf of rocket, which is much more plausible. Rather, Pliny must have confused the two Greek words εὐζόμενον (*euzômon*, rocket) and ὄκιμον (*ôkimon*, basil).³⁷

29 Dsc. 4.68.2.

30 Cf. Amigues (2002: 243–246).

31 Plin. *Nat.* 21.179.

32 André (ed.), Plin. *Nat.*, Book 21, pp. 158–159, note 2.

33 Dsc. 4.73.

34 Thphr. *HP* 9.11.6 and Amigues (ed.), *Théophraste, Recherches sur les plantes*, Book 9, p. 155, note 17: Theophrastus uses it for another plant: blady grass. The fruits of the *datura* and of blady grass share a thyrsoid aspect, which implies a link between θρύον and phytonyms like θύρσιον, derived from θύρσος, "thyrsus." That is why S. Amigues offers to translate θρύον by "thyrsus weed."

35 Plin. *Nat.* 21.178.

36 Dsc. 4.73.

37 André (ed.), Plin. *Nat.*, Book 21, p. 158, note 1.

He misread the source, certainly Theophrastus, who describes this rocket leaf, “but bigger,”³⁸ and maybe also the source he shared with Dioscorides. The identical final syllable in both words, εὔζομον and ὠκίμον, may partly explain Pliny’s confusion. Furthermore, his working methods exposed him to such mistakes as he often dictated his notes to an amanuensis. Moreover, εὔζομον, meaning “tasty sauce,” could also describe basil, which is as much an aromatic plant as the rocket. So the failure of Pliny’s graft is due to these mistakes.

Sometimes, Pliny himself refuses the graft because of the hazard represented by these plants—hazards against which he wishes to warn his readers. He rejects what the Greek writers have written. He says of the withania:

laudatum uero a Diocle et Euenore, Timaristo quidem etiam carmine,
mira obliuione innocentiae (Plin. *Nat.* 21.180).

Yet praised by Diocles and Euenor, by Timaristus indeed even in verse,
with a strange forgetfulness of harmless remedies (trans. by Jones).³⁹

Pliny even refuses to describe the plant, for it is too dangerous:

soporiferum est atque etiam opio uelocius ad mortem (Plin. *Nat.* 21.180).

is soporific, and kills quicker even than opium (trans. Jones).

This position is also contrary to Theophrastus’s principles of description: it is thus a double rejection of the graft. He adopts the same attitude as regards the datura, consistently repeating that one must not give too many details about the plant⁴⁰ and even reproaching the Greeks for having joked about it, when a few drops of its sap can provoke madness—specifically attacking Theophrastus here. Pliny follows him for a part of the description and the effects, then rejects him for something else and relies on other sources whose works are unfortunately unavailable to us. The multiple graft is of course very frequent in Pliny as it perfectly fits his work as a compiler.

The way Pliny proceeds with the graft, making mistakes which attribute erroneous characteristics to the plants or abutting miscellaneous information,

38 Thphr. *HP* 9.11.6.

39 Diocles of Carystus, known as the Second Hippocrates is one of the master of the Dogmatic School of the fourth century B.C.; Euenor is an Athenian physician of the third century B.C.; Timaristos is named by Pliny among the physicians in the sources of Book 21.

40 Plin. *Nat.* 21.178–179.

leads us to ask the question: Is Pliny a creator of monsters? As we have seen, one misreading leads him to create a plant with the leaves of basil and the characteristics of *datura*. It does not exist! In his confusion, he also invents red *datura*, of which we know no more than the ancients. Beyond analgesic plants, could we go so far as to say that Pliny creates “plant chimeras,” not unlike the composite monsters disowned by Aristotle and Lucretius such as the chimera, the centaur, the human-headed ox, or the olive-branched vine?⁴¹ Aren’t the plants haunting his work quite often ones that do not exist in nature and only live within his text? Sometimes, they are the sum of some characteristics which originally did not belong to the same plant. As regards Pliny’s work, V. Naas⁴² asserts:

Se proposant de décrire la nature, Pline ne copie pas ce monde à l’identique, il crée un monde autre. (Offering to describe nature, Pliny does not reproduce this world exactly, but creates a new one.)

We could apply this comment to Pliny’s plants.

Though J. Pigeaud said that “grafting, like it or not, is producing a monster,” he also added:

Unir le scion et le porte-greffe revient, si cela prend, à créer un troisième individu qui vit et donne des fruits. (Uniting the scion and the stock, if it holds, comes to creating a third element that lives and bears fruits.)

The birth of a third being means a successful graft, and Pliny is unquestionably fruitful where analgesic plants are concerned.

The Successful Graft

If sometimes it seems that Pliny’s graft did not take, analgesic plants give the general impression of a successful process. It appears that the assimilation and the adaptation of sources outside the writer’s time and project are a prerequisite to a successful graft.

Indeed, some of Pliny’s sections on analgesic plants very clearly combine elements taken from Greek sources and others that are unquestionably Roman. Pliny and Theophrastus both evoke the deathly power of opium poppy.

⁴¹ Arist. *Ph.* B.199 b; Lucr. 1.839–878; cf. Pigeaud (1988: 203–206).

⁴² Naas (2002: 2).

But, while Theophrastus writes about a poppy- and hemlock-based drug “likely to make the outcome easier and painless,” and relates that it has been discovered by Thrasyas of Mantinea,⁴³ Pliny does not mention the Greek herbalist. Rather, he reports a particularly Roman anecdote to illustrate the fact that the excess of opium can provoke death during sleep: Praetor P. Laecinius Caecina’s father died of an overdose of opium, says Pliny:

Sic scimus interemptum P. Licini Caecinae praetorii uiri patrem in Hispania Bauili, cum ualetudo inpetibilis odium uitae fecisset (Plin. *Nat.* 20.199).

In this way, we are told, died at Babilum in Spain the father of Publius Licinius Caecina, a man of praetorian rank, when an unbearable illness had made life hateful to him (trans. by Jones).

Did he commit suicide? The context is similar to that of Theophrastus, but adapted for a Roman audience.

When the graft is successful, it is also because the information gathered fits the author’s project. Since it concerns powerful, dangerous, and controversial plants, this particular way of handling the information is more frequent than with more ordinary plants. Several of these plants are linked to the eerie realm of magic, like mandrake, doomed to all manners of occult practices by its anthropomorphic root. We have seen that Pliny followed closely Theophrastus in his description of this plant, but that he also removed some details. Theophrastus claims that its root:

τὴν δὲ ῥίζαν πρὸς ἐρυσιπέλας ξυσθεῖσάν τε καὶ ὄξει δευθεῖσαν καὶ πρὸς τὰ ποδαγρικὰ καὶ πρὸς ὕπνον καὶ πρὸς φίλτρα (Thphr. *HP* 9.9.1).

and the root is used for erysipelas, when scraped and steeped in vinegar, and also for gout, for sleeplessness, and for love potions (trans. by Hort).

These philtres are also present in Dioscorides.⁴⁴ But Pliny never alludes to any philtre. Those are presumably mainly love potions. Indeed, aphrodisiac and reproductive properties have been attributed to mandrake since early antiquity. In his description of the picking of the plant, Theophrastus stages a picker

43 Thphr. *HP* 9.16.8.

44 Dsc. 4.75.1.

dancing around it while uttering as many erotic words as possible.⁴⁵ Regarding the magical picking, Pliny, who perfectly knows this text he widely takes up, has nevertheless removed this element, besides the philtres, and thus only carries out a partial graft. It is hard to explain why. But it must be remembered that Pliny is an aristocrat writing for the Roman upper classes. Above all, he writes a treatise in domestic medicine intended for the *paterfamilias* and the earnest matrons. Thus, these details may be irrelevant even though they are attested by a long tradition. Pliny also adds an indication which can be found neither in Theophrastus nor in Dioscorides: the picker must be careful not to be against the wind. This information does not come from Theophrastus but from another source. To be against the wind is to face a contrary wind—opposite, *contrarius*—which could obstruct the operation, more symbolically than in actuality. Maybe we should also link this detail to the fact that Pliny reports that the leaves of the mandrake bear noxious properties and that its very odour affects the head.⁴⁶ Against the wind, one would be more subject to those emanations.

Finally, Pliny can only place his work within the frame of his time. The way he describes analgesic and narcotic plants inevitably takes into account what is thought, said, and known of them at the time. F. Le Blay wrote:

On n'a jamais autant parlé du corps et de l'expérience de la douleur qu'aux premiers siècles de l'ère chrétienne sous l'influence du stoïcisme romain. (The body and the experience of pain have never been more discussed than during the first centuries of the Christian era, under the influence of Roman Stoicism.)⁴⁷

Pliny conveys the values of his society in his work, and, as V. Naas has demonstrated, Stoic philosophy, much favoured in first-century Rome, undeniably influenced him.⁴⁸ To a certain extent—taking into account the differences in status and function between the works—there is, for instance, a dissimilarity in the way pain and its treatment are considered in the *Hippocratic Corpus* and in the *Natural History*. Unquestionably, we find many references to pain therapeutics in Hippocrates, and the physicians knew how to use analgesic plants.⁴⁹ But in the books, at least for the plants we are dealing with, the

45 Thphr. *HP* 9.8.8.

46 Plin. *Nat.* 25.148–149.

47 Le Blay (2006: 81).

48 Naas (2002: 32).

49 Rey (2000²: 29–30); Moisan (1990).

connection is not always directly made between the use of the plant and the soothing of the pain. Hippocrates, for example, mentions pain in the case of gynaecological diseases and advises the use of opium poppy, but he does not necessarily associate the plant with the soothing of the pain. He prescribes the bark of white and red poppies to treat leucorrhoea,⁵⁰ having mentioned, further above, that the pain is located in the lower abdomen and in the loins. Unlike Pliny or Dioscorides, he seldom says that “for the pain of such and such organ, poppy can be used.” Pain is mainly mentioned as a symptom to describe the affection.⁵¹ In the text, the mention of pain is not concomitant with that of the opium poppy. Soothing the pain does not seem critical in the medical treatment. The mention of henbane in the *Hippocratic Corpus* suggests that it was mainly used to soothe pain but most of the time it is never clearly specified. For instance, henbane is recommended against tetanus,⁵² but it is absolutely impossible to cure the disease with henbane; on the other hand, an analgesic action is possible, and yet nothing is said about this possibility.⁵³ The treatment of the pain is not separated from the treatment of the disease. But it is true that treating the pain independently is a modern idea. In Pliny as in Dioscorides, the desire to fight pain is clearly indicated:

Medentur et aurium dolori, item sucus inunctus hyoscyami modicus (Plin. *Nat.* 25.164).

They also cure ear-ache, as does the application of a moderate amount of juice of henbane (trans. by Jones).

Should this be perceived as an evolution characterised by a greater interest in the patient's suffering, just as in the same period Celsus' medicine was characterised by a greater empathy toward the sick?⁵⁴ Or can it be explained by the differences in status between the works? Pliny, like Celsus, is an encyclopaedist.

50 Hp. *Nat. Mul.* 15.9 (7.332–334 L.).

51 E.g. Hp. *Mul.* 2.113.19 (8.245 L.); metrorrhagia is treated with opium poppy seeds; the disease manifests itself through a pain in the genitals.

52 Hp. *Int.* 52.9 (7.298 L.).

53 M. Moisan says the same thing about the mandrake, the opium poppy, and the hound's berry: Moisan (1990: 383–384).

54 Cf. Ph. Mudry, “Les voix de la douleur entre médecins et malades. Enquêtes dans l'Antiquité,” communication for the one-day conference “La souffrance physique dans l'Antiquité: théories et représentations du corps souffrant,” Université de Toulouse II-Le Mirail, 1^{er} octobre 2010.

Moreover, he writes a treatise on domestic and family medicine in which soothing the pain is necessarily critical.

D. Gourevitch⁵⁵ has shown that opium poppy, mandrake, and henbane constituted “the anaesthetic triad of the ancient times.” Pliny stresses this aspect. While for Pliny mandrake is both analgesic and anaesthetic, Hippocrates only describes it as an analgesic. J. Jouanna shows that though the pain of the sick is highly present in the *Hippocratic Corpus*, as it is used as an indicator for diagnosis and prognosis, the pain of the subject of an operation is hardly mentioned—and yet he is not anaesthetised.⁵⁶ So there are two very distinct kinds of pain, and, at the time, one was considered worthy of interest while the other was not. Yet, the properties of opium poppy were well known and it had been grown for a long time.⁵⁷ Hippocrates does not mention the soporific power of the plant, whereas Pliny insists several times on this quality in his section. While Hippocrates still only discretely alludes to the soporific qualities of mandrake,⁵⁸ Pliny clearly prescribes drinking it to numb the pain caused by injections and slits, just as, at the same period, Dioscorides gives receipts of mandrake wine designed to put people to sleep⁵⁹ and he recommends that physicians use this plant before an operation. Our knowledge of Pliny’s sources in medical botany is too narrow for us to find out exactly how he treated them and where he obtained all the information, but it is clear that he has combined his sources while taking into account the evolution of the knowledge. Then, we can only speak of a successful graft.

Conclusion

Finally, Pliny, with regard to medical botany, behaves like a gardener whose graft brings together two plants and creates another one, with all the failures and successes that it implies. In Book 17, the author of the *Natural History* evokes a multi-grafted tree:

Tot modis insitam arborem uidimus iuxta Tiburtes tullios omni genere pomorum onustam, alio ramo nucibus, alio bacis, aliunde uite, piris, ficis, punicis, malorumque generibus (Plin. *Nat.* 17.120).

⁵⁵ Gourevitch (2001).

⁵⁶ Jouanna (1992: 182).

⁵⁷ Gourevitch (2001: 309–310).

⁵⁸ Thphr. *HP* 9.9.1.

⁵⁹ Dsc. 4.75; 5.71.

We have seen beside the Falls of Tivoli a tree that has been grafted in all these ways and was laden with fruit of every kind, nuts on one branch, berries on another, while in other places hung grapes, pears, figs, pomegranates and various sorts of apples (trans. by Rackham).

We could say that this tree is a reflection of Pliny's work, save that, according to the author, the life of the tree was short, which was certainly not the case with the *Natural History*.

Bibliography

- Amigues, S. (1999), "Les traités botaniques de Théophraste," in: Wöhrle (ed.), 124–154.
 ——— (2002), *Études de botanique antique*, Paris.
- Amouretti, M.C./Comet, G. (eds.) (1995), *La transmission des connaissances techniques* (Tables rondes, Aix-en-Provence, avril 1993–mai 1994), Aix-en-Provence.
- André, J. (1955), "Pline l'Ancien botaniste," *Revue des études latines* 33, 297–318.
 ——— (1959), "Erreurs de traduction chez Pline l'Ancien," *Revue des études latines* 37, 203–215.
 ——— (1985), *Les noms de plantes dans la Rome antique*, Paris.
- Beagon, M. (1992), *Roman Nature: The Thought of Pliny the Elder*, Oxford.
- Bianchi, O./Thévenaz, O. (eds.)/Mudry, Ph. (dir.) (2004), *Conceptions et représentations de l'extraordinaire dans le monde antique* (Actes du colloque international, Lausanne, 20–22 mars 2003), Bern/Frankfurt am Main.
- Biraud, M./Bosc, C. (eds.) (2009), *Aux sources du métissage culturel. Aspects scientifiques, linguistiques et artistiques dans l'Antiquité* (Actes des Journées de la CNARELA, Nice, 27–28 octobre 2008) publication sur CD-ROM.
- Bonet, V. (2009), "Pline et Théophraste. À propos des plantes médicinales," in: Biraud/Bosc (eds.), III.c., 1–23.
- Ducourthial, G. (2003), *Flore magique et astrologique de l'Antiquité*, Paris.
- Gaide, F. (1995), "La jusquiame dans l'Antiquité romaine. Réflexions méthodologiques sur la lecture et l'appréciation des textes médicaux latins," in: Amouretti/Comet (eds.), 115–126.
- Gourevitch, D. (2001), "La triade anesthésique dans le monde gréco-romain," *Cahiers d'anesthésiologie* 49.4, 309–314.
- Hort, A. (ed. & trans.) (1916 & 1928), *Theophrastus, Enquiry into Plants, and Minor Works on Odours and Weather Signs*, Cambridge MA/London, 2 vol., repr. 1968 (vol. 1) and 1977 (vol. 2).
- Jouanna, J. (1992), *Hippocrate*, Paris.
- Langslow, D.R. (2000), *Medical Latin in the Roman Empire*, Oxford.

- Le Blay, F. (2006), "Penser la douleur dans l'Antiquité. Enjeu médical ou enjeu philosophique?," in: Prost/Wilgaux (eds.), 79–82.
- Moisan, M. (1990), "Les plantes narcotiques dans le *Corpus hippocratique*," in: Potter/Maloney/Desautels (eds.), 381–392.
- Mudry, Ph. (2004), "*Mirabilia et magica*. Essai de définition dans l'*Histoire naturelle*" de Pline l'Ancien, in: Bianchi/Thévenaz (eds.)/Mudry (dir.), 239–252 (= Mudry [2006], 31–41).
- (2006), "*Medicina, soror philosophiae*". *Regards sur la littérature et les textes médicaux antiques (1975–2005)*, Maire, B. (ed.), Lausanne.
- Naas, V. (2002), *Le projet encyclopédique de Pline l'Ancien*, Paris.
- Pigeaud, J. (1988), "La greffe du monstre," *Revue des études latines* 66, 197–218.
- /Oroz, J. (eds.) (1987), *Pline l'Ancien témoin de son temps* (Actes du Colloque de Nantes, 22–26 octobre 1985), Salamanca/Nantes.
- Pliny, *Natural History in Ten Volumes*, Cambridge MA/London; trans. Book 7: Rackham, H. (1941¹); Books 17 and 19: Rackham, H. (1950¹); Books 20 and 21: Rackham, H. (1951¹); Book 25: Jones, W.H.S. (1956¹).
- Potter, P./Maloney, G./Desautels, J. (eds.) (1990), *La maladie et les maladies dans la "Collection hippocratique"* (Actes du 6^e colloque international hippocratique, Québec, du 28 septembre au 3 octobre 1987), Québec.
- Prost, F./Wilgaux, J. (eds.) (2006), *Penser et représenter le corps dans l'Antiquité* (Actes du colloque international de Rennes, 1–4 septembre 2004), Rennes.
- Rey, R. (2000²), *Histoire de la douleur*, Paris (1993¹).
- Serbat, G. (1973), "La référence comme indice de distance dans l'énoncé de Pline l'Ancien," *Revue de philologie, de littérature et d'histoire anciennes* 47, 38–49.
- (1987), "Il y a Grecs et Grecs! Quel sens donner au prétendu antihellénisme de Pline?," in: Pigeaud/Oroz (eds.), 273–282.
- Wöhrle, G. (ed.) (1999), *Geschichte der Mathematik und der Naturwissenschaften in der Antike*, 1. *Biologie*, Stuttgart.

Collyrium Names Attested on Stone Tablets: The Example of the Helvetian Corpus

Muriel Pardon-Labonnelie

Abstract

Collyrium-stamps are usually parallelepipedic stones that might have been used in the Roman world, between the second part of the first century and the fourth century A.D., to stamp eye medicine. On their four narrow sides, those seals contain instructions engraved in retrograde characters, of varying drawing quality, sometimes in Greek, mostly in Latin and in an abbreviated form. These markings represent some sort of medical prescriptions since they contain one or more of the following information: a personal name in the genitive case, a collyrium name, therapeutic instructions, and a method of administration. Like personal names and therapeutic instructions, collyrium names suggest that Roman eye medicine was inscribed in the Greek medical tradition. A comparison between the collyrium names engraved on the seals unearthed in Switzerland and the collyrium names known through our reading the Greek medical texts allows for an estimation of the influence of Greek ophthalmology on Roman eye medicine.

In Graeco-Roman antiquity, “collyrium” is not always a “medicine with a local action, generally in liquid form, applied on the conjunctiva for the treatment of eye or eyelid ailments.”¹ According to Greek etymology, this medicine presents itself in the form of a *κολύριον*, i.e. a “small stick.”² According to ancient medical texts, the ingredients used in the composition of “collyria” are finely ground, baked or even reduced to ashes and mixed with a liquid; thus, they turn into a paste that is dried by the air and then used when needed—after a final preparation—to treat various diseases.³

※ Translated by Pascale Monfils, subsequently revised by Jon Wilcox.

1 Imbs (ed.) (1977: 5, 1053, 2, s.u. “Collyre”). For a modern technical use of the term, Delamare (ed.) (2006²⁹: 187, 1, s.u. “Collyre”): “Medicine, generally liquid, meant to be applied on the conjunctiva” (trans. is mine).

2 Gourevitch (1999; 2003).

3 Pardon-Labonnelie (2006a).

More than three hundred small tablets might have been used to stamp “collyria” while the medicine’s consistency was still paste-like.⁴ Those tablets—generally of parallelepiped form—would have been used from the middle of the first century to the fourth century of our era.⁵ Their four narrow faces hold engraved information in retrograde characters—with a varying drawing quality—more often in Latin, in an abbreviated form. Such inscriptions present medical specifications. To the present state of research, they include one piece of information or more, interpreted as follows: a personal name in the genitive case, a medicine’s name, a therapeutic indication, and a method of administration. When abbreviations are intelligible, a comparative analysis of the medicines’ names and therapeutic indications shows that, in the ancient Roman world, those stone tablets were most likely used to stamp the medicines meant to treat ocular ailments.⁶

Many clues suggest that “collyrium-stamps” were used by practitioners of Greek origin or, at least, of Greek culture. For instance, some inscriptions present ornamented letters borrowed from the Greek alphabet:⁷ some even have a Latin text engraved with Greek characters.⁸ Moreover, a great number of engraved personal names—in the genitive case—lead one to believe that the stone-tablet users were (or pretended to be) of Greek origin or, at least, that they had put their professional work under the protection of a Greek medical authority or deity.⁹ However, the written form alone is not enough to measure the influence of the Greek medical tradition on the Roman history of ocular treatments. It is also fair to argue that any research on names remains uncertain.

It seems that collyrium-stamp users did not only refer to the Greek medical tradition, but that they also used written and oral sources of various origins—sometimes non-medical; that the stone tablets served less as a means to spread knowledge than as a way to claim a specialist knowledge reserved to professionals; and, finally, that despite the information passed on in Celsus’ *On Medicine* (*De medicina*), Greek names for ocular ailments are rarely attested in Latin medical texts and on stone tablets.¹⁰ The study of the medicine names

4 Voinot (1999a). The collyrium-stamps cited in this paper are presented according to the numbers of this inventory, preceded by the abbreviation “V.”

5 Voinot (1999b).

6 Marganne (1997; 2002; 2005; 2006: 63).

7 For instance, the Y of the inscriptions engraved on V.14.

8 For instance V.260.

9 For instance V.85: *HERASISTRATI* (“of Erasistratus”) or V.229: *HYGINI* (“of Hyginus”).

10 Pardon-Labonnelie (2007; 2009; 2010; 2011).

engraved on the stone tablets will make possible the confirmation or nullification of these hypotheses.

One hundred and twenty-three medicine names are listed in the current reference inventory of collyrium-stamps. Any statistical analysis of the stone tablets being questionable, considering the current state of our knowledge, a selection of the medicine names engraved on the stamps unearthed from present-day Switzerland was necessary for this symposium. On a limestone altar found in Avenches and dated from the second half of the second century or the beginning of the third century, figures an inscription generally interpreted as follows:

Numini(bus) Aug(ustorum)
et Genio col(oniae) Hel(uetiorum)
Apollini sacr(um).
Q(uintus) Postum(ius) Hyginus
et Postum(ius) Hermes lib(ertus)
medicis et professorib(us)
d(e) s(uo) d(ederunt)

To the emperors' protective deities and the Helvetian colony's genie, dedicated to Apollo. Quintus Postumius Hyginus and Postumius Hermes, his freed slave, built at their own expense [this monument] to doctors and professors (trans. is mine).¹¹

The names of the dedicatees and the deities to whom the altar is dedicated illustrate the bond that inextricably links Roman medicine to Greek medicine.¹² The interest of that inscription is even more important for the history of ophthalmology, for the abbreviated name of the freed slave, *Postum. Hermes*, can also be seen on a "collyrium-stamp" found in Lausanne.¹³ Those two exceptional cases show that ancient Helvetian ocular medicine is a medical speciality at the crossroads of Greek and Roman cultures.

11 For a commentary on this inscription (*CIL* 13.5079): Mudry/Bielman (1995) (= Mudry [2006], 257–268).

12 On this point, notably Nutton (1993).

13 V.254.

At least twelve small monuments have been found in Switzerland: there are three in Bern,¹⁴ two in Martigny,¹⁵ two in Lausanne,¹⁶ two in Augst,¹⁷ one in Avenches,¹⁸ one in Dietikon,¹⁹ and one in Windisch (ancient Vindonissa).²⁰ The inscriptions engraved on those tablets include the twenty-one legible collyrium names²¹ that follow: *COEN*, *NARDINVM*, *DIALEPIDOS* and *DIABSORIC*, *ANICETON*, *DIAMISVS*, *CINNAMINVM* and *DIASMYRNES*, *DIAPSORICVM* (2 occurrences), *CINNAMINVM* and *CINNAMIN*, *CHLORON* and *PELAGIN*, *CROC* and *DIAZMYRNES*, *DIASORICVM* and *NARDINVM*, *LENEM* and *DECENTETV*, *DIAPSOR* and *DIAMESVS*.²²

The meaning of these appellations is often hard to define. Indeed, eight of these terms are neither attested in the texts of the electronic version of the *ThLL* nor in the manuscript eye medicine corpus.²³ Only the appellation *nardinum* refers to an *unguentum* in Pliny the Elder's *Natural History*²⁴ and to a *collyrium* in the works of Pelagonius, Vegetius, and Cassius Felix.²⁵ The works of Scribonius Largus and Marcellus the Empiricist only offer a single occurrence

14 V.237, 238, and 239.

15 V.290 as well as one stamp unearthed since the publishing of Voinot's inventory (Wibl  [2010]).

16 V.119 and 254.

17 V.233 and 274.

18 V.224.

19 Lieb (1995).

20 V.266.

21 Stamp V.119 has been broken: there are too many incomplete inscriptions to suggest any receivable interpretation for this paper.

22 V.224: *COEN*; V.233: *NARDINVM*; V.237: *DIALEPIDOS* and *DIABSORIC*; V.238: *ANICETON*, *DIAMISVS*, *CINNAMINVM*, *DIASMYRNES*; V.239: *DIAPSORICVM* (2 occurrences), *CINNAMINVM* and *CINNAMIN*; V.254: *CHLORON* and *PELAGIN*; V.266: *CROC* and *DIAZMYRNES*; V.274: *DIASORICVM* and *NARDINVM*; V.290: *LENEM* and *DECENTETV*; stamp discovered in Martigny: *DIAPSOR*; stamp discovered in Dietikon: *DIAMESVS*. For the meaning of those terms, *infra ad loc.*

23 Chapters have been devoted to eye medicine in the works attributed to Cato, Varro, Celsus, Pliny the Elder, Scribonius Largus, Columella, Quintus Serenus, Gargilius Martialis, Palladius, Pelagonius, Vegetius, Sextus Placitus, Marcellus the Empiricist, Cassius Felix, Theodorus Priscianus, and Caelius Aurelianus as well as in the works entitled *De herba uettonica*, *Medicina Plinii*, *Epistula ad Valentinianum*, *De taxone*, *Herbarium Apulei*, and *Mulomedicina Chironis*.

24 Plin. *Nat.* 13.15. Only four occurrences of the term *nardinum* are attested in the texts gathered in the electronic version of the *ThLL*.

25 Pelagon. 423; Veg. *Mulom.* 3.22.12–13; 3.27.4–5; Cass. Fel. 29.13.

of *diasmyrnes*.²⁶ Finally, *dialepidos*, *diamisyos*, *diazmyrnes*, and *diapsoricum* can only be seen in the work of Marcellus the Empiricist.²⁷ Thus, all those medicine names are *hapax legomena*, or at least technical terms difficult to understand since they are very rarely used in manuscript Latin literature.

Mainly, it is the endings in *-on*, *-es* or *-os*, the prefix *dia-* —“— base”—,²⁸ as well as the digraph *ch* and the letters *y* and *z*, borrowed from the Greek alphabet, that lead us to the conclusion that, generally, those terms are simple transliterations, sometimes Latinized, of Greek remedy names. The comparison of those appellations with the names of the collyria attested in the Greek eye medicine corpus makes the identification of their meanings²⁹ possible and gives an overview of the way the collyrium-stamp users placed their therapeutic practice within the tradition of the manuscript Greek medical knowledge that survives to this day.

The term *collyrium* is the only generic pharmaceutical preparation name attested on stone tablets,³⁰ sometimes preceded or followed by a qualifying adjective. This term is the transliteration of κολλύριον, a kind of pharmaceutical preparation that, according to Antyllos,³¹ is not supposed to treat eye ailments exclusively. In the Greek eye medicine corpus, κολλύριον is generally defined by an adjective that indicates the collyrium's specific name or that, sometimes, even designates the remedy by itself. Epigraphic attestations of *collyrium* seem to show that Latin neutral adjectives were used to name collyria just as the Greek adjectives were.

Since the collyria ἀνίκητον and χλωρόν—“invincible” and “green”³²—are mentioned in the Greek eye medicine corpus,³³ we can conclude that the terms *aniceton* and *chloron* are transliterated Hellenisms. The written form of the second Latin neologism is hence remarkable: it can be even more readily seen as a Hellenism since it is the archaic digraph *ch* that takes the place of the *χ* in χλωρόν. The written form used for *chloron* is characteristic of the

26 Scrib. Larg. 26; Marcell. *Med.* 8.211.

27 Marcell. *Med.* 8.117; 8.197; 8.199; 8.206.

28 Rippinger (1993).

29 For the terms traditionally adopted to translate those collyrium names as well as for their epigraphic attestations, Voinot (1999a: 43–48).

30 Voinot (1999a: 41 and 43–44).

31 Antyllos *ap.* Oribas. 10.23.1 (= Raeder 2, 64). On Antyllos, Nutton (2002: “Antyllos 2”).

32 On the therapeutic use of green for ocular ailments, Pardon-Labonnelie (2006b).

33 For attestations of the collyrium name ἀνίκητον, Oribas. *Syn.* 3.140; Oribas. *ap.* Aët. 7.107. For attestations of the collyrium name χλωρόν, Gal. *De comp. med. sec. loc.* 4.8 (12.763–765 K.; 3 occ.); Paul. Aeg. 3.22.6; Aët. 7.110; 7.111.

learned languages used in scholarly circles.³⁴ Like *aniceton*, *chloron* seems to give credit to the idea that Roman eye medicine is but a simple copy of Greek eye medicine.

However, unlike the appellations that end with *-on*, collyrium names ending in *-es* are not transliterations. “Myrrh-based” collyria—myrrh being an expensive essence³⁵ renowned for its smell³⁶—are mentioned in the Greek eye medicine literature, but they are not identified with the appellations *DIASMYRNES* or *DIAZMYRNES*: they are presented through what is called, in linguistics, a prepositional syntagma—the phrase τὸ διὰ σμύρνης κολλύριον—or through a hypostasis—i.e. a prepositional syntagma reduced to a single term—διάσμυρνον, a more appropriate appellation according to the Galenic corpus.³⁷ Thus, the terms *diasmyrnes* and *diazmyrnes*, hypostases of the transliterated syntagma διὰ σμύρνης, are neologisms specific to the eye medicine’s jargon. Those appellations, thoroughly studied by Léon Rippinger and Otta Wenskus,³⁸ could give the impression that collyrium-stamp users were not very familiar with the Greek eye medicine corpus that survives to this day and that they referred to other written or oral sources. Just like for *chloron*, the written form for these two terms shows a clear will to insert the Latin eye medicine lexicon into the Greek medical tradition. Not only is the transcription of υ by y an archaism,³⁹ but the z in *diazmyrnes* does not even correspond to any etymological reality.⁴⁰ Thus, sometimes, collyrium-stamp users seem to have exaggerated in their search for isomorphism.

The appellations *CROC* and *COEN* are a testimony to the same lexical ambition. A comparative study of different inscriptions shows that these series of letters probably are abbreviations of the words *CROCODES* and *COENON*. According to the online version of the *ThlG*, the adjective κροκῶδες is only attested as a neuter in the Greek medical corpus: this rare term—identified in Latin, with

34 For a synthesis on the transcription of Greek letters in Latin, Purnelle (1995).

35 Plin. *Nat.* 37.204.

36 Plin. *Nat.* 13.17; Scrib. *Larg.* 26.

37 Gal. *De meth. med.* 14.19 (10.1020 K.): τὸ δ’ ἐν τοῖς ὀφθαλμοῖς πύον ὅταν διαφορῆσαι βουλώμεθα, τοῖς διὰ σμύρνης μάλιστα κολλυρίοις χρηστέον, ἃ δὴ καὶ καλοῦσιν ἰδίως διάσμυρνα. (“When we want to evacuate the pus from the eyes, it is the collyria that are mainly based on myrrh that have to be used, they are then called, strictly speaking, ‘myrrh-based collyria,’” trans. is mine).

38 Rippinger (1993); Wenskus (1995: 185–186). For a synthesis on those appellations, see the study to be published after the next inventory of the collyrium stamps.

39 Biville (1995: 257–282).

40 Biville (1990: 98–113).

its suffix *-ōdes*, as a word borrowed from Greek⁴¹—generally is, then, a “saffron” collyrium. As for the appellation *COENON*, it is not, to my knowledge, attested in the Greek medical corpus that survives to this day. It probably is a transliteration of the adjective κοινόν, “common,” since the abbreviation of the diphthong *οι* in *oe* is common in Latin.⁴² In this hypothesis, the meaning of the term casts doubt on the therapeutic virtues of the remedy.⁴³ In any case, whatever its meaning, the fact that this appellation is common enough to be abbreviated confirms that a technical lexicon specific to collyrium-stamp users was frequently used.

The same thing happens with *DIALEPIDOS*, the last appellation with a Greek ending. Just like *DIASMYRNES* or *DIAZMYRNES*, *DIALEPIDOS* is a medicine name made of the transliteration of the preposition *διὰ* and of the element in the genitive case. The term *lepis* is the transliteration of a Hellenism that refers to copper slag—λεπίς—a product of the highest quality when coming from Cyprus.⁴⁴ In the Greek eye medicine corpus that survives to this day, *λεπίς* is very often used in the preparation of collyria, but there are no collyria with the appellation “lepis-based.” Like *DIASMYRNES*, *DIAZMYRNES*, or *COENON*, the appellation *DIALEPIDOS* is a term limited to the eye medicine’s jargon.

Collyrium names ending in *-um*, most present in this corpus, are not all Latinized transliterations of neutral collyrium names of the second declension attested in the Greek literature that survives to this day. Only *NARDINVM* is the Latinized transliteration of νάρδινον, the name of a “spikenard” collyrium frequently mentioned in the Greek eye medicine corpus⁴⁵ and inscribed on a papyrus fragment.⁴⁶ On the other hand, *CINNAMINVM* does not have an equivalent in the Greek eye medicine literature that survives to this day. It is true that the appellations *cinnamum* and *cinnamominum* are sometimes confused,⁴⁷ but in the Greek medical corpus, there is but one mention of the “cinnamon-based” collyrium, τὸ διὰ κινναμώμου;⁴⁸ furthermore, the supposed eye-treating virtues of cinnamon are looked upon with suspicion in the Galenic

41 André (1971: 117–121).

42 Biville (1995: 334–336).

43 The inscription engraved on that stamp is limited to the mention *COEN*.

44 Plin. *Nat.* 34.107. Marcellus the Empiricist mentions the Cypriot origin of this ingredient three times: Marcell. *Med.* 8.194; 8.199; 8.210.

45 For instance Gal. *De comp. med. sec. loc.* 4.3 (12.712 K.); 4.8 (12.771 K.); Oribas. *Syn.* 3.130; 8.39.4; Aët. 7.4; 7.13; 7.32; 7.100; 7.103; 7.117; Paul. Aeg. 7.16.25; [Alex. Trall.] *Περὶ ὀφθαλμῶν* 2 (*Nachträge* 174.2 Puschmann); *Hippiatr.* 11.47 (p. 72 Oder I).

46 *P.Vindob.* inv. G 39978 = MP³ 2423.6. Marganne (2005: 12–13).

47 André (1985: 67, s.u. *cinnamōmum* and *cinnamum*).

48 Gal. *De meth. med.* 12.8 (10.869 K.).

corpus.⁴⁹ The suffix *-inum* might give the idea that *nardinum* and *cinnaminum* are borrowed from Greek⁵⁰—they are, like myrrh, two adjectives often put together to evoke fragrant exotic substances used during cult celebrations and imported at very high prices to mix perfumes⁵¹—but, like in the case of *coenon*, the appellation *cinnaminum* makes one wonder about the competence and professional identity of collyrium-stamp users.⁵²

Like *DIASMYRNES* or *DIAZMYRNES*, *DIAPSORICVM* is a hypostasis that refers to a collyrium with a copper by-product—*psoricon*—such a rare substance that its preparation is described in several scientific texts.⁵³ *Diasporicum*'s neutral ending—where one would have expected an ending in the genitive case because of the prefix *dia*—can be easily explained by the fact that only one *psoricon* collyrium is mentioned several times in the Graeco-Latin eye medicine corpus.⁵⁴ Just like the letter *z* in *diazmyrnes*, the prefix *dia* in *diapsoricum* corresponds to no etymological reality. It is only there to give a Greek feeling to the collyrium name; there is but one attestation of *diapsoricum*, in Marcellus Empiricus's recipe book. On the other hand, for the abbreviation *DIAPSOR* for instance, the variants of *DIAPSORICVM* that can be seen amongst the inscriptions unearthed in Switzerland show that the neutral term was frequently employed by some of the collyrium-stamp users; both a voicing of the *p* into a *b* in *DIABSORICVM* and its removal in *DIASORICVM* can be seen. It is then obvious that, in some cases, collyrium-stamp users did not draw their knowledge from the same sources as those used by the authors of Latin medical texts.

Finally, the term *DECENTETVM*—through comparative studies—can be found amongst the neutral appellations in *-um* attested on the collyrium-stamps unearthed in Switzerland. A parallel with several inscriptions shows that

49 Gal. *De comp. med. sec. loc.* 4.5 (12.723–12.724 K.).

50 Kircher-Durand (2002: 142): "These borrowed words have three characteristic traits. They are very rarely used, often by a single author. They belong to very specific lexical areas: colour vocabulary, natural history or luxurious goods [clothing, fabrics, perfumes, ointments, exotic food]. Finally, it has been established that the authors that use them, dramatic poets, doctors, naturalists, translators of the Septuagint and Christian writers, had Greek models."

51 Plin. *Nat.* 12.26; 12.51; 12.86; 13.15; 37.204. On the price of the ingredients used to compose remedies, Cam (2007).

52 The term *MERCATORIS* is attested on two stamps: V.279 and Delmaire (1999: 197–198). Korpela (1995).

53 Cels. 6.6.31b; Gal. *De simpl. med. temp. ac fac.* 9.3.40 (12.244 K.); Dsc. 5.99.3; Oribas. 13.10.6.

54 Cf. Cels. 6.6.31a; 6.6.33; Scrib. Larg. 32; Plin. *Nat.* 37.119; Gal. *De comp. med. sec. loc.* 4.5 (12.723 K.); 4.7 (12.730–12.731 K.); 4.8 (12.788 K.; 2 occ.); Marcell. *Med.* 8.69.

decentetum is not attested as often as *dicentetum*—sometimes abbreviated. The term *dicentetum* probably is a Latinized transliteration of διακέντητον, a collyrium name solely attested in the work of Paul of Aegina,⁵⁵ and this *hapax legomenon* is most certainly a variant of διακέντητον. Indeed, not only is διακέντητον the name of a collyrium attested in the works of both Oribasius and Aëtius of Amida (who himself quotes Demosthenes in one case),⁵⁶ but two more parallels can be found in the works of Aëtius of Amida and Paul of Aegina: διακέντητον and στρατιωτικόν for the former, διακέντητον and στρατιωτικόν for the latter. The initial appellation, διακέντητον, is the verbal adjective of the verb διακεντεῖν—a technical term that, according to Aëtius of Amida, evokes the action of doing a cross-puncture in a case of discharge or ocular spot.⁵⁷ Thus, maybe the collyrium διακέντητον identifies a medicine that “can make a puncture” just like a “cataract” needle. In any case, it is because the prefix δια- does not introduce an ingredient name in the genitive case—like it usually does with the names of medicines—that the α disappeared from its transliteration and that this collyrium name is so difficult to understand.

The abbreviation *PELAGIN* should probably be considered as a collyrium name in *-um* since an epigraphic attestation of the adjective *PELAGIVM*⁵⁸ exists. The latter is often used in Latin poetry to evoke the open sea of the Greek world. Because of its suffix, *pelaginum* is seen as a name borrowed from Greek that evokes the deep blue of the open sea. This appellation is immediately understandable for someone who speaks Latin, but, as a neuter, it is a *hapax legomenon* that is not the transliteration of an appellation attested in the Greek eye medicine literature. The name of this collyrium is, once again, an appellation that sounds Greek, specific to the stamp users of the Roman world.

DIAMISVS, a neologism, leads to the same conclusions to that of the other remedy names based on copper-derived ingredients. *Misy*, a substance especially renowned when coming from Cyprus,⁵⁹ was used in many eye remedies, but the appellation *DIAMISVS* has no equivalent in the Greek literature that survives to this day. Finally, just like the shortening of its *y* and its ending in *-us*,⁶⁰ a parallel between the form *DIAMISVS* and variants like *DIAMESVS*, *DIAMYSVS*,

55 Paul. Aeg. 3.22.9.

56 Aët. 7.50; 7.79; 7.114; Oribas. Syn. 3.134.

57 Aët. 7.30.

58 V.155.

59 Plin. Nat. 34.121.

60 André (1956). For a comparison with *dialepidus*, Rippinger (1993: 299).

DIAMISYOS, DIAMYSEOS, or ΔΙΑΜΥΣΟΥ⁶¹ shows that the “*mis*-based” collyrium was often employed by stone-seal users.

Lastly, out of the twenty-one remedy names of this list, only the appellation *LENEM* does not necessarily sound like a borrowed word. It does bring to mind the adjective *lenis*, “mild,” often engraved as a neuter on collyrium-stamps, but its ending in *-em* is unexpected. This appellation could, of course, be considered as a solecism caused by the ignorance of the lapicide, just like the numerous other tricky cases that we have seen so far. Yet, the engraving of the inscriptions needs to be executed with such care that a recurring error is unlikely. It is also possible that *lenem* is an abbreviation for *lene medicamentum* (“mild remedy”). However, *lenem* presents itself as a single term whereas the inscriptions currently listed have separating dots. *Lenem* could also be an abbreviation of *lenementum*, a variant of *linimentum*, “liniment,”⁶² but the terms *lenementum* and *linimentum* have never been attested on the engraved inscriptions on the stamps or in the eye medicine literature.⁶³ Finally, *lenem* could be a late neutral variation of *lene*⁶⁴—a term used to translate the adjective τρυφερόν⁶⁵—like in examples attested in, among others, the *Chiron's Cures for Mules* (*Mulomedicina Chironis*).

The collyrium names attested on the engraved inscriptions of the stone tablets unearthed in Switzerland are at least, if not *hapax legomena*, terms very seldom attested in Latin eye medicine literature. Just like the ornamentation of certain characters or like certain personal or eye ailment names, collyrium names place the medical practice of the stamp users within the Greek medical tradition. Indeed, when they are not simple transliterations of Hellenisms, those technical appellations are usually seen as borrowed names through their archaic written form, their prefixes or suffixes, or the exotic world they bring to mind—might it be the open sea, fragrant substances, or sought-after copper ore.

61 V.3d; 63b; 126a; 260b.

62 On this translation, Forcellini (1865: 773, 1, s.u. *linimentum*); Niermeyer (1976: 614, s.u. *linimentum*).

63 For the attestations of *lenimen* and *lenimentum* in the late Latin world, Perrot (1961: 42, 73, 92, 97, 98, 100, 102, 122, 146, 148, 151, 152, 207, 287).

64 Competing attestations can be cited such as *oculare* and *oculare* or *collirium fistularem*, *collirium fistulare*, and *collirium fistularum* (Chiron 59; 723; 931; 933; 934; 935) as well as the expression *lenem medicamentum* (Chiron 645). This morphosyntactic evolution becomes frequent in the Middle Ages: Stotz (2000: 33–40 [§12]).

65 On the attestations for τρυφερόν in the eye medicine corpus, Gal. *De comp. med. sec. loc.* 4.8 (12.757 K.; 12.758 K.; 12.769 K.); Aët. 7.99; Alex. Trall. 2 (2.9.1 Puschmann).

Those lexical creations are a sign of the elaboration of a specialised lexicon. They are a testimony to both real semantic and morphosyntactic assimilations and a search—if sometimes excessive—for isomorphism. However, not only do the spelling variations show various degrees of assimilation but, sometimes, they even evoke less the names of remedies than the names of common or fragrant and luxurious products. Thus, they lead one to wonder about the professional identity of the stamp and collyrium users.

A comparison of the number of manuscript and epigraphic attestations⁶⁶ shows that collyrium-stamp users did not use the same sources as the authors of Latin medical texts: maybe they took their knowledge from texts that do not survive to this day, or maybe the knowledge was transmitted orally.⁶⁷ In any case, whatever their knowledge of Greek,⁶⁸ they deliberately adopted appellations that were difficult to understand for the uninitiated. This choice might as well have been dictated by a will to claim mastery over a technical lexicon reserved to professionals⁶⁹ than by the hope of increasing the value of remedies sold to credulous patients or practitioners.

It is right after explaining which copper by-product was referred to by the technical term *lepīs* that Pliny the Elder lost his temper over the ignorance of the doctors of his time:

Haec omnia medici—quod pace eorum dixisse liceat—ignorant. Parent nominibus: in tantum a conficiendis medicaminibus absunt, quod esse

66 For a provisional inventory of the epigraphic occurrences, see Voinot (1999a: 43–48). One can add to those occurrences the inscriptions stamped on collyria (*NARDINVM*, *CROCO*, and maybe *DIAMYSVS* on the collyria discovered in Reims, Cologne, and Viminacium (Kostolatz, Serbia): Gourevitch [1998]) and on vessels (*CROCOD* on potteries and a monogram that probably signifies *διάσµυ* on a phial discovered in Isthmia: Jackson [1996: 186] and Taborelli/Marengo [2010: 218]) or engraved on stamps discovered since the publication of Voinot's inventory: such as *DIAPSORIC* and *CROCODES* on a stamp discovered in Strasbourg (Dardaine [2000]), *DIASPORIC* and maybe *DIAMI* on a stamp discovered in Bavay (Delmaire/Loridan [2002]), *DIASMYRINES* and *NARDINVN* on a stamp discovered in Gauting (Hägele [2002–2003]), *DIASMYRN* and *DIALEP* on a stamp discovered in Orleans (Jeset [2005–2006]) and *DIASMYRNES* on an unpublished stamp discovered in Chartres in 2007 (excavations of the movie theatre “Les enfants du Paradis” supervised by Dominique Joly).

67 On the few traces left by Latin medical texts compared to those left by Greek medical texts, see in this volume the contribution of Marie-Hélène Marganne and Magali de Haro Sanchez.

68 On the bilingualism of the Romans, besides volume 14 of the *Inscriptiones Graecae*, dedicated to the Greek inscriptions in Italy and Sicily, see notably, for different kinds of sources, Boyancé (1956); Väänänen (ed.) (1966: 262); Väänänen (ed.) (1970: 265); Kramer (1979); Dubuisson (1992); Bats (2004).

69 Mazzini (1978).

proprium medicinae solebat. Nunc quotiens incidere in libellos, componere ex his uolentes aliqua, hoc est impendio miserorum experiri commentaria, credunt Seplasiae⁷⁰ omnia fraudibus corrumpenti. Iam pridem facta emplastra et collyria mercantur, tabesque mercium aut fraus Seplasiae sic exhibetur! (Plin. *Nat.* 34.108 [= Rackham 9.206–208]).

But all these facts the doctors, if they will permit me to say so, are ignorant—they are governed by names: so detached they are from the process of making up drugs, which used to be the special business of the medical profession. Nowadays whenever they come on books of prescriptions, wanting to make up some medicines out of them, which means trial of the ingredients in the prescriptions at the expense of their unhappy patients, they rely on the fashionable druggists' shops which spoil everything with fraudulent adulterations, and for a long time they have been buying plasters and eye-salves ready made; and thus is deteriorated rubbish of commodities and the fraud of the druggists' trade put on show (trans. by Rackham).

The names of collyria attested on stone tablets seem to corroborate one of Pliny the Elder's famous diatribes against doctors:⁷¹

Auctoritas aliter quam Graece eam tractantibus etiam apud inperitos expertesque linguae non est, ac minus credunt quae ad salutem suam pertinent, si intellegant (Plin. *Nat.* 29.17 [= Jones 8.194])

If medical treatises are written in a language other than Greek they have no prestige even among unlearned men ignorant of Greek, and if any should understand them they have less faith in what concerns their own health (trans. by Jones).

Bibliography

- André, J. (1956), "Nominatifs latins en *-us* formés sur un génitif grec en *-ος*," *Bulletin de la Société de linguistique de Paris* 52, 254–264.
 ——— (1971), *Emprunts et suffixes nominaux en latin*, Geneva/Paris.

⁷⁰ On this place of Capua famous for its perfumers and unguent-makers, also Plin. *Nat.* 16.40; 33.164; Petron. 76.6; Philipp (1923).

⁷¹ On this topic, see Hahn (1991).

- (1985), *Les noms de plantes dans la Rome antique*, Paris.
- Bats, M. (2004), "Grec et gallo-grec. Les graffites sur céramique aux sources de l'écriture en Gaule méridionale (II^e–I^{er} s. av. J.-C.)," *Gallia* 61, 7–20.
- Bird, J./Hassall, M.W.C./Sheldon, H. (eds.) (1996), *Interpreting Roman London: Papers in Memory of Hugh Chapman*, Oxford.
- Biville, F. (1990 & 1995), *Les emprunts du latin au grec. Approche phonétique*, 1. *Introduction et consonantisme*, 2. *Vocalisme et conclusions*, Louvain/Paris.
- Boyancé, P. (1956), "La connaissance du grec à Rome," *Revue des études latines* 34, 111–131.
- Cam, M.-Th. (2007), "Peut-on évaluer le coût des soins vétérinaires?," in: Cam (ed.), 277–293.
- (ed.) (2007), *La médecine vétérinaire antique. Sources écrites, archéologiques, iconographiques* (Actes du colloque international de Brest, 9–11 septembre 2004), Rennes.
- Collard, F./Samama, É. (eds.) (2006), *Pharmacopoles et apothicaires. Les "pharmaciens" de l'Antiquité au Grand Siècle* (Actes des 4^e Rencontres d'histoire de la médecine, des pratiques et des représentations médicales dans les sociétés anciennes, Troyes, 20–21 janvier 2006), Paris.
- Dardaine, S. (2000), "Nouvelles Inscriptions découvertes rue du Donon à Strasbourg-Koenigshoffen," *Cahiers alsaciens d'archéologie, d'art et d'histoire* 43, 45–54.
- Debru, A. (ed.) (1997), *Galen on Pharmacology: Philosophy, History and Medicine* (Proceedings of the 5th International Galen Colloquium, Lille, 16–18 March 1995), Leiden/New York.
- Defosse, P. (ed.) (2002), *Hommages à Carl Deroux, 2. Prose et linguistique, médecine*, Bruxelles.
- Delamare, J. (ed.) (2006²⁹), *Dictionnaire illustré des termes de médecine*, Paris.
- Delmaire, R. (1999), "Quatre objets d'époque romaine avec inscriptions," *Revue du Nord. Archéologie de la Picardie et du Nord de la France* 81, n° 333, 197–201.
- /Loridant, F. (2002), "Notes épigraphiques. 3. Deux nouveaux cachets d'oculistes à Bavay," *Revue du Nord. Archéologie de la Picardie et du Nord de la France* 84, n° 348, 126 (col. 2)–128 (col. 2).
- Dubuisson, M. (1992), "Le grec à Rome à l'époque de Cicéron. Extension et qualité du bilinguisme," *Annales (Économies, Sociétés et Civilisations)* 47, 187–206.
- Duchêne, H. (ed.) (2006), *Survivances et métamorphoses* (Actes de la journée d'études de l'équipe d'accueil 1865, Dijon, 26 mai 2004), Dijon.
- Ebnöther Ch. (ed.) (1995), *Der römische Gutshof in Dietikon*, Zürich.
- /Schatzmann, R. (eds.) (2010), "*Oleum non perdidit*" (Festschrift für Stephanie Martin-Kilcher zu ihrem 65. Geburtstag), Bern.
- Ferraces Rodríguez, A. (2007) (ed.), *Tradición griega y textos médicos latinos en el período presalernitano* (Actas del VIII coloquio internacional "Textos médicos latinos antiguos," A Coruña, 2–4 Septiembre 2004), A Coruña.

- Forcellini, E. (1865), *Lexicon totius latinitatis*, Patavii.
- Frei-Stolba, R./Speidel, M.A. (eds.) (1995), *Römische Inschriften. Neufunde, Neulesungen und Neuinterpretationen* (Festschrift für Hans Lieb zum 65. Geburtstag dargebracht von seinen Freunden und Kollegen), Basle.
- Gaide, F./Biville, F. (2003) (eds.), “*Manus medica*.” *Actions et gestes de l’officiant dans les textes médicaux latins. Questions de thérapeutique et de lexique* (Actes du colloque tenu à l’Université Lumière–Lyon II, Lyon, 18–19 septembre 2001), Aix-en-Provence.
- Gangloff, A. (ed.) (2011), *Médiateurs culturels et politiques dans l’Empire romain. Voyages, conflits, identités* (Actes des journées d’études organisées à Paris par l’USR 710 “L’Année épigraphique,” les 3 et 4 avril 2009), Paris.
- Gourevitch, D. (1998), “Collyres romains inscrits,” *Histoire des sciences médicales* 32.4, 365–372.
- (1999), “Pilules romaines. Noms et réalités,” in: Ternes (ed.), 40–60.
- (2003), “Fabriquer un médicament composé, solide et compact, dur et sec. Formulaire et réalités,” in: Gaide/Biville (eds.), 49–68.
- Hägele, H. (2002–2003), “Ein römischer Augensalbenstempel aus Gauting,” *Jahresbericht der bayerischen Bodendenkmalpflege* 43–44, 201–207.
- Hahn, J. (1991), “Plinius und die griechischen Ärzte in Rom. Naturkonzeption und Medizinkritik in der *Naturalis Historia*,” *Sudhoffs Archiv* 75, 209–239.
- Imbs, P. (ed.) (1971–1994), *Trésor de la langue française. Dictionnaire de la langue du XIX^e et du XX^e siècles (1789–1960)*, 16 vol., vol. 5 (1977), Paris.
- Jackson, R.P.J. (1996), “A New Collyrium-Stamp from Staines and Some Thoughts on Eye Medicine in Roman London and Britannia,” in: Bird/Hassall/Sheldon (eds.), 177–187.
- Jesset, S. (2005–2008), “Un cachet d’oculiste découvert à Orléans (Loiret),” *Revue archéologique du Loiret* 30–31, 106.
- Kircher-Durand, Ch. (2002), “Les dérivés en *-inus* tirés de phytonymes latins et de noms de substances naturelles,” in: Kircher-Durand (ed.), 139–143.
- (ed.) (2002), *Grammaire fondamentale du latin*, 9. *Création lexicale. La formation des noms par dérivation suffixale*, Louvain.
- Korpela, J. (1995), “*Aromatarii, pharmacopolae, thurarii et ceteri*. Zur Sozialgeschichte Roms,” in: van der Eijk/Horstmanshoff/Schrijvers (eds.) (1995–1996), vol. 1, 101–118.
- Kramer, J. (1979), “L’influence du grec sur le latin populaire. Quelques réflexions,” *Studi classici* 18, 127–135.
- Langslow, D./Maire, B. (eds.) (2010), *Body, Disease and Treatment in a Changing World: Latin Texts and Contexts in Ancient and Medieval Medicine* (Proceedings of the Ninth International Conference on Ancient Latin Medical Texts, Manchester, 5th–8th September 2007), Lausanne.
- Le Blay, F. (ed.) (2009), *Transmettre les savoirs dans les mondes hellénistique et romain* (Actes du colloque “*Doctrinarum disciplina*. La transmission des savoirs dans les mondes hellénistique et romain,” Nantes, mars 2007), Rennes.

- Lieb, H. (1995), "Der Augensalbenstempel Kat. 1818," in: Ebnöther (ed.), 201.
- Marganne, M.-H. (1997), "Les médicaments estampillés dans le corpus galénique," in: Debru (ed.), 153–174.
- (2002), "Les médicaments estampillés dans la littérature médicale latine," in: Dfosse (ed.), 536–548.
- (2005), "Les prescriptions ophtalmologiques des papyrus et des ostraca grecs d'Égypte," *Bulletin de la Société francophone d'histoire de l'ophtalmologie* 15, 3–23.
- (2006), "Étiquettes de médicaments, listes de drogues, prescriptions et réceptaires dans l'Égypte gréco-romaine et byzantine," in: Collard/Samama (eds.), 59–73.
- Mazzini, I. (1978), "Il greco nella lingua tecnica medica latina. Spunti per un'indagine sociolinguistica," *Annali della Facoltà di lettere e filosofia dell'Università di Macerata* 11, 541–556.
- Mudry, Ph. (2006), "*Medicina, soror philosophiae*". *Regards sur la littérature et les textes médicaux antiques (1975–2005)*, Maire, B. (ed.), Lausanne.
- Mudry, Ph./Bielman, A. (1995), "Les médecins et professeurs d'Avenches (CIL XIII 5079)," in: Frei-Stolba/Speidel (eds.), 259–273 (= Mudry [2006], 257–268).
- Niermeyer, J.F. (1976), *Mediae latinitatis Lexicon minus*, Leiden.
- Nutton V. (1993), "Roman Medicine: Tradition, Confrontation, Assimilation," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 49–78.
- (2002), "Antyllos," *Der neue Pauly. Enzyklopädie der Antike*, 1, 817–818.
- Pardon-Labonnelie, M. (2006a), "La préparation des collyres oculistiques dans le monde romain," in: Collard/Samama (eds.), 41–58.
- (2006b), "Les thérapeutiques oculistiques romaines. Entre survivances et métamorphoses. L'exemple de la thérapeutique du vert," in: Duchêne (ed.), 111–132.
- (2007), "Les noms d'affections palpébrales attestés dans le livre chirurgical du *De medicina* de Celse," in: Ferraces Rodríguez (ed.), 237–248.
- (2009), "Du savoir au savoir-faire. L'oculistique, une 'spécialité' médicale gallo-romaine," in: Le Blay (ed.), 133–153.
- (2010), "L'évolution des hellénismes translittérés dans la langue médicale latine. L'exemple du terme *ἐπιφορά*," in: Langslow/Maire (eds.), 283–294.
- (2011), "Les utilisateurs de cachets à collyres étaient-ils des 'médiateurs culturels'?" in: Gangloff (ed.), 159–165.
- Perrot, J. (1961), *Les dérivés latins en -men et -mentum*, Paris.
- Philipp, H. (1923), "Seplasia," *Paulys Real-Encyclopädie der classischen Altertumswissenschaft*, 2.a, 1546.
- Purnelle, G. (1995), *Les usages des graveurs dans la notation d'upsilon et des phonèmes aspirés. Le cas des anthroponymes grecs dans les inscriptions latines de Rome*, Geneva.
- Rippinger, L. (1993), "Les noms de médicaments en *dia-*," *Latomus* 52, 294–306.
- Stotz, P. (2000), *Handbuch zur lateinischen Sprache des Mittelalters*, 4. *Formenlehre Syntax und Stilistik*, Munich.

- Taborelli, L./Marengo, S.M. (2010), "Microcontenitori per *medicamenta* di epoca ellenistica e romana," *Archeologia classica* 61, 211–242.
- Ternes, Ch.-M. (ed.) (1999), *La thérapeutique dans l'Antiquité. Pourquoi? Jusqu'où?* (Actes des 8^e Rencontres scientifiques de Luxembourg tenues en 1997), Luxembourg.
- Väänänen, V. (ed.) (1966), *Graffiti del Palatino*, 1. *Paedagogium*, raccolti ed editi sotto la direzione di Veikko Väänänen, a cura di Heikki Solin e Marja Itkonen-Kaila, Helsinki.
- (ed.) (1970), *Graffiti del Palatino*, 2. *Domus Tiberiana*, raccolti ed editi sotto la direzione di Veikko Väänänen, a cura di Paavo Castrén e Henrik Lilius, Helsinki.
- van der Eijk, Ph.J./Horstmanshoff, H.F.J./Schrijvers, P.H. (eds.) (1995–1996), *Ancient Medicine in its Socio-Cultural Context* (Papers read at the congress held at Leiden University, 13–15 April 1992), 2 vol., Amsterdam/Atlanta.
- Voinot, J. (1999a), *Les cachets à collyres dans le monde romain*, Montagnac.
- (1999b), "Les cachets à collyres," *Réalités ophtalmologiques* 68, 26.
- Wenskus, O. (1995), "Triggering und Einschaltung griechischer Formen in lateinischer Prosa," *Indogermanische Forschungen* 100, 172–192.
- Wiblé, F. (2010), "Un nouveau cachet à collyre découvert à Martigny (VS)," in: Ebnöther/Schatzmann (eds.), 333–335.

PART 5

Language and Establishment of the Text



The Meaning and Etymology of the Adjective *Apiosus*

Vincenzo Ortoleva

Abstract

The author discusses the etymology and meaning of the adjective *apiosus*, which occurs in Pelagon. 405 (*ad equum appiosum*) and 406; Chiron 17, 257, 260, 276, 278, 279–280, 333, 986; Veg. *Mulom.* 1.25.2, 2.2, 2.5.1, 2.9.3, 2.10, 2.11.1, 2.97.4 (all Vegetius' passages depend on the *Mulomedicina Chironis*) and in Greek transliteration in *Hipp. Cant.* 81 (tit.) (ἀπιώσσου). The *equus apiosus* has staring eyes, pokes his head into the manger, cannot stand, and falls down if he tries to walk; sometimes he turns round and round as if pushing a millstone. The etymology of the word has previously been explained in terms of the curative or magical properties of the *apium* ("celery") (Ihm and Fischer), or of the sting of the *apis* ("bee") (Gourevitch) or a mistaken derivation from the Greek with confusion between σεληνίτης—which should mean *lunaticus*, "epileptic," but is not attested in this sense—and σελινίτης (from σέλινον = *apium*, "celery") (Magnani). In reality things are different. The word *apiosus* comes from *apium agreste*, or *rusticum* or *risus*, a poisonous plant which may be identified with *Oenanthe crocata* L. or *Conium maculatum* L. The term *apiosus* originally indicated an animal—in particular a donkey—which had eaten a large quantity of hemlock (*Conium maculatum* L.), a plant with intoxicating qualities—it is significantly named *imbriága moléntis* in some Sardinian dialects. Later the word *apiosus* came by analogy to designate an animal suffering from the disease now called *Ryegrass staggers*, caused by an endophytic fungus of the perennial ryegrass. An appendix on the gloss *appiosus* μετέωρος in the *Hermeneumata Celtis* (12.972) closes the study.

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※ Translated by John Justin Rizzo, subsequently revised by Jon Wilcox. I am greatly indebted to Dr. John Blundell of *Thesaurus linguae Latinae* in Munich for the careful revision he so generously offered.

The serpent will die, and the poisonous deceitful plant will die.¹



1 Occurrences of the Term *apiosus*

Criticism has more than once focused on the exact meaning of the adjective *apiosus* and, even more so, on its etymology up until very recently, as we will see. The term is found almost exclusively in the Latin treatises on veterinary medicine:

1. Ad equum appiosum. Primum omnium loco tenebroso stet et mollibus cibis recreandus et hac potione sanandus: apii uiridis fasciculum tritum, mellis – IIII, nasturci triti cyath. II, haec simul cum uino faucibus infundito; quae si parum profuerit ista potio, caput aduratur; unctionibus calidis perungatur, quas ad robur ostendimus. Collyrio sane oculos inungito (Pelagon. 405).

deest in E; a faucibus infundito incipit Bo || quae Bo: que R quod Sarchiani Ihm || profuerit ista potio R: fuerit ista post Bo || caput R: capud Bo || perungatur R: -guatur Bo || quas R: quod Bo || inungito R: -guito Bo.

To cure an *apiosus* horse: first of all, the animal must stay in a dark place, eat soft food, and be treated with the following potion: take a bunch of crushed green celery, four ounces of honey, and two *cyathi* of ground nasturtium and administer them orally together with wine; however, if this potion proves to have little effect, cauterise the head and apply the same warm ointments which we referred to regarding tetanus. Also, moisten its eyes with a *collyrium*.²

2. Potio ad appiosum. Primum de temporibus sanguis detrahendus est, deinde potio haec adhibenda: semen api, spicae nardi, petroselini Macedonici, lactucae semen, papaueris semen cum aqua mulsa permixta omnia dabis diebus quinque caputque eius pellicula oleo madefacta cooperies. Certissima ac manifestissima potio (Pelagon. 406).

deest in E || appiosum R: apiosos Bo || primum R: -mo Bo || detrahendus R: emittendus Bo || spicae R: -ca Bo || papaueris semen om. Bo || mulsa

1 Verg. *Ecl.* 4.24–25: *occidet et serpens, et fallax herba ueneni / occidet.*

2 All translations from Greek and Latin are mine.

R: multa Bo || permixta Bo: -mista R || omnia R: omia Bo || caputque R: capudque Bo || cooperies R: cop- Bo || ac Bo: om. R || manifestissima Bo: manifesta R.

Potion for an *apiosus* horse. First, blood should be taken from the temples. Then the following potion should be given: take celery, nard seeds, parsley, lettuce, and poppy seeds; mix them with water and honey and administer the preparation for five days. Also, cover its head with an animal skin damp with oil. It is an unfailing and very reliable potion.

3. Similiter de ipsis uenis dextra sinistra mitti debet et his qui infra scripti sunt: *apioso*, *insano*, *cardiaco*, *caduco*, *frenetico*, *distentiosis*, *sideraticio*, *rabioso* (Chiron 17).

Likewise, blood should always be taken from the left and right veins, even in sick animals of the following kinds: *apiosi*, those suffering from insanity, ailments of the stomach, epilepsy, frenzy, those suffering from *distentio*, paralysis, and rabies.

4. Quod si in una parte cerebri haec corruptio uenit et inundauerit, ex eadem parte doloris grauatus amens fit *apiosus*. Ex qua grauedine in illam partem corporis girat tanquam post molam. Vnde nec uidet, cerebro enim uisus in oculis pascitur et in corde sensus. Inde haec omnes ualitudines, quae e cerebro oriuntur, nec uident nec sanae mentis sunt (Chiron 257).

If this disease goes into one part of the brain and spreads there, the animal, suffering pain in that part, and crazed, becomes *apiosus*, and because of the pressure in that part of the body starts to spin around in circles as if pushing a millstone. As a result, it cannot even see, for the brain supplies sight to the eyes and judgement to the heart. Therefore those who suffer from these diseases that originate from the brain do not see and are not sane.

5. Haec similis ratio toracis si *apioso* contingerit, *rabiosum* facit (Chiron 260).

apioso *Oder*: a *opioso* *BM* [a] *opioso* *Niedermann*.

If a similar malady of the chest strikes an *apiosus* animal, the animal will become rabid.

6. Ex hac re [*scil.* *distensione*] fiunt *apiosi*, *insani*, *rabiosi*, *frenetici*, *cardiaci*. Horum autem omnium cura capitis prima est (Chiron 276).

Because of this condition [*distensio* or *distentio* is a disease that might affect the animal's brain] animals become *apiosi*, insane, rabid, frenzied,

and suffer from stomach ailments. For all these cases, the first thing to treat is the head.

7. Potionem dabis [*scil.* equo distensioso] eam quam apioso (Chiron 278).

apioso *ego*: opioso *M* Oder *Niedermann* opiosi *B*.

Give the horse suffering from *distensio* the same potion that is administered to the *apiosus* horse.

8. Si quod iumentum apiosum fuerit, signa demonstrant haec: in praesepio incumbit, oculos tensos habebit et auriculis dimicat, et non multum uidet et oculi eius lacrimabuntur, et girat tanquam post molas. Hic erit apiosus. 280 Sed si in rabiem conuersus fuerit, sic intelligis. Subito hinniet tanquam sanus, et morsu appetit aut parem suum aut hominem, aut praeseptum perrodet aut ilia sibi morsicis comedit. Sic eum curabis, tanquam apiosum. Loco tenebroso eum includes, ordeum ne dederis, et mollibus cibariis iuuabis. Magis tamen apium uiridem prius, quantum uolueris, ei da. Sanguinem de temporibus detrahe uel de ceruice quod satis fuerit (Chiron 279–280).

279 apiosum *ego ex Veg. Mulom. 2.10*: opiosum *M B?* Oder *Niedermann*; *sed de apioso in indice libri III* (§ 114) *BM* || apiosus *ego*: opiosus *BM* Oder *Niedermann* || 280 sanus *BM*: insanus *Önnerfors* (1993: 199, n. 93) *sed cf. Veg. Mulom. 2.11.1* || apiosum *ego ex Veg. Mulom. 2.11.1*: opiosum *BM* Oder *Niedermann*.

If an animal is *apiosus*, it will show these symptoms: it will be bent over the manger, have its eyes wide open and shake its ears; it will not see well and its eyes will shed tears; also, it will spin around as if pushing a millstone. This is an *apiosus* horse. If, however, that condition turns into rabies, you will understand it from the following signs: the animal suddenly will neigh much like a healthy horse and try to bite either another animal or a man, or constantly gnaw at the manger, or bite its own flanks. Treat it in the same way as the *apiosus* horse: enclose it in a dark place; do not give it barley but help it with soft foods. Above all, however, give it as much fresh celery as you wish. Let blood from the temples or the neck as needed.

9. Et si sanum non fuerit, ures ei [*scil.* caduco] caput similiter ut apioso; cura tamen ei caput frequenter (Chiron 333).

But if it continues to feel unwell, cauterise its head [that of the epileptic animal] in a similar way to that of the *apiosus*; but treat its head frequently.

10. Si quod iumentum apiosum erit, sic eum intelligis. Caput suum in praese-pium inpellit, oculi non palpebrant, extensi sunt, subito spasmus patiuntur. Et cum illum a loco suo petere uoles, si non illum tenueris, cadet. Sic eum curabis. Si se sustinere potuerit, sanguinem emittito et caput illi foueto et iactato. Vbi iactaueris, tunc pelliculam nigram inuolues. Postero potionabis iumentum. Cariota, semen apii, semen lactucae, semen nasturcii, butirum de mulsa decoques et sic potionabis (Chiron 986).

You will realise that an animal is *apiosus* by the following signs: it beats its head on the manger, it does not blink its eyes, which remain wide open and suffer from sudden contractions. Also, if you want to pick it up, it will fall to the ground if you do not hold it. The treatment is as follows: if the animal can stand up, bleed it, apply a poultice on its head, and lay it down. After having laid it down, wrap it in a black hide. Then give the animal a potion: prepare a decoction in honeyed water of dates, celery seeds, lettuce seeds, cress seeds, and butter and administer it as a potion.

11. Cefalargicis autem, apiosis, insanis, cardiacis, caducis, freneticis, distenticiis, sideraticis, rabiosis praecipitur de uenis auricularum sanguinem demere (Veg. *Mulom.* 1.25.2 [~ Chiron 17]).

However, when treating animals suffering from headaches, *apiosi*, the insane, those with stomach ailments, the epileptic, frenzied, those suffering from *distentio*, paralysis, and rabies, it is recommended to take blood from the veins of the ears.

12. Ceterum cum noxius sanguis membranam cerebri ex una parte pertuderit et eandem dolore nimio coeperit praegravare, efficitur animal apiosum, cuius et mens hebetatur et uisus. Nam cerebri incolumitas et oculos pascit et sensus. In qua passione, quia una pars capitis praegravatur, tanquam ad molam uadit in gyrum (Veg. *Mulom.* 2.2 [~ Chiron 257]).

When, however, the harmful blood pierces a membrane of the brain on one side and starts to press on it causing great pain, the animal becomes *apiosus* and its mind and sight both become dark. A healthy condition of the brain feeds both the sight and the judgement; so with this kind of disease, as one part of the head is heavy, the animal turns around as if pushing a millstone.

13. Quodsi apiosum similis passio thoracis inuenerit, facit continuo rabiosum (Veg. *Mulom.* 2.5.1 [~ Chiron 260]).

And if a similar disease of the chest affects an *apiosus* animal, it will immediately make it rabid.

14. Quae passio [*scil. distentio*] ceterarum uoletudinum et fons probatur et mater: nisi enim inter initia curaueris caput, ut animal dormiat competenter, fiunt apiosi, insani, rabiosi, frenetici, cardiaci (Veg. *Mulom.* 2.9.3 [~ Chiron 276]).

It has been proven that this disease [the *distentio*] is the source and origin of other diseases; if you do not treat the head as soon as symptoms are first perceived so that the animal can sleep comfortably, the animal will become *apiosus*, insane, rabid, frenzied and will suffer from stomach ailments.

15. Si quod iumentum apiosum fuerit, in praesepio incumbit, oculos tensos habebit, micabit auriculis, uisus caliginem patietur et gyrat in circulo tanquam ad molas (Veg. *Mulom.* 2.10 [~ Chiron 279]).

If an animal is *apiosus*, it will bend over the manger, have its eyes wide open, shake its ears, suffer from blurred vision, and turn in circles as if it is pushing a millstone.

16. quem [*scil. equum rabiosum*] sicut apiosum curabis (Veg. *Mulom.* 2.11.1 [~ Chiron 280]).

and it [a rabid horse] is given the same treatment as an *apiosus*.

17. Si autem passio perdurauerit, caput ei [*scil. equo caduco*] ures, ut apioso fieri consuevit (Veg. *Mulom.* 2.97.4 [~ Chiron 333]).

If the disease persists, however, apply the cautery to its head [that of the epileptic animal] as is done with the *apiosus*.

18. Περὶ μανίας, λύσσης, ληθάργου, σκοτωματικῆς, ἀπιώσσου, ἐπιλήπτου, ἀτιθάσσου καὶ πρὸς τὸ ἡμίονον παῦσαι λακτίζοντα (*Hipp. Cant.* 81 [tit.]).

Regarding madness, rabies, the animal suffering from lethargy and vertigo, the *apiosus*, the epileptic, the rabid, and to prevent the mule from kicking.

It can therefore be said, especially when we look at Chiron 257 (see n° 4 above), 279 (see n° 8 above) and 986 (see n° 10 above), that the main symptoms of the *apiosus* horse were a dazed condition, wide-open eyes, difficulty in walking (if the animal tried to move it often fell), and, at times, the continuous turning around in circles as if it were pushing a millstone. It is also significant that this condition is sometimes treated with other mental disorders of animals such as those listed in Chiron 17 (see n° 3 above): *apioso*, *insano*, *cardiaco*, *caduco*, *frenetico*, *distentiosis*, *sideraticio*, *rabioso*. However, a more precise identification of this disease will be offered later.

2 The *Status Quaestionis*: Ihm, Fischer, Gourevitch, and Magnani

In order to properly understand the arguments of various scholars, a short *status quaestionis* of the etymology under consideration may now be presented, keeping in mind that chapter 29 of Pelagonius' *Ars ueterinaria*—where there are two references to *equus apiosus* in §§ 405 (see n° 1 above) and 406 (see n° 2 above)—has the following title:

XXVIII. De rabie uel de cursu lunae uel de insania equi uel de paralytico.

*deest in Bo || XXVIII R: XXVIII E || uel de cursu lunae R: om. E || insaniae qui (scil. insania equi) E necnon R in indice: insania R.*³

On anger or *cursus lunae* or insanity of the horse or the paralysed horse.

In 1892, Max Ihm, commenting on Pelagon. 405, expressed himself in the following manner:

It is uncertain if the horses are labelled *apiosi* (from *apium*, “celery”) because the potion that is said to heal them contains *apium* (405 “celery stalks,” 406 “celery seeds”) or because it was believed that there was something sacred and mysterious in *apium* (note the Greek proverbial expression “It needs celery”). With reference to the alternative reading *opiosus*, it must be rejected. . . . When the *cursus lunae* is mentioned in the chapter title, i.e. epilepsy (note also Iuuenius 1.446: “madness is associated with the moon’s phases”; 3.359: “the phase of the moon is haunting my son through the devil’s intervention”; Ps.-Apul. *Herb.* 10: “for the epileptics who suffer due to the phases of the moon”), it seems to me quite probable that *lunatici* have to be understood as *apiosi* horses and that the expression, because of an evident error, is derived from the Greek *σελινίτης* (*σεληνίτης*).⁴

3 Valérie Gitton-Ripoll (in press) has recently focused on the title of the chapter and in particular on the expression *de cursu lunae*.

4 Ihm (1892: 191–192): “Equi apiosi dicti ab apio utrum ea de causa quod potio qua sanari dicuntur apium contineat (405 *apii uiridis fasciculum*, 406 *semen api*), an quod in apio sacri arcanique quiddam inesse credebatur (cf. illud prouerbii instar *σελίνου δεῖται*), incertum. . . . Sprenenda autem uidetur lectio altera *opiosus*. In lemmate capitis cum mentio fiat *cursus lunae* h. e. lunaticae passionis (cf. Iuuenius 1.446 *lunae cursum comitata insania mentis*; 3.359 *cursus lunae natum mihi daemones arte torquet*. Ps.-Apul. *Herb.* 10 [9.1 cod. B] *ad lunaticos qui cursum lunae patiuntur*), apiosos intellegendos esse lunaticos manifestoque errore uocem ex Graeco *σελινίτης* (*σεληνίτης*) translata esse mihi quidem probabile uisum est.”

The commentary by Klaus-Dietrich Fischer from 1980 draws quite heavily on Ihm's observations, departing from him only in its treatment of the variant *opiosus*:

According to Ihm, the alternative reading *opiosus* was to be discarded; I am, however, doubtful. A similar alternation can be found in *apopanax* / *opopanax*, *apobalsamum* / *opobalsamum*.⁵

Fischer also agrees with Ihm that the mention of the *cursus lunae* in the title derives from an error of iotacism in a supposed Greek source.⁶

In 1993, the problem of the etymology of *apiosus* was taken up once again, this time by Danielle Gourevitch, who proposed a derivation of the adjective from *apis* ("bee"), based on the occurrences in the *Mulomedicina Chironis* (and Vegetius) which describe the way the afflicted animal continuously turns in a circle.⁷ The *apiosus* would therefore be the horse bitten by a bee, an insect which, as Gourevitch points out, was alleged by the ancients to be dangerous to horses.⁸

The latest research on the term *apiosus*, however, was done by Massimo Magnani in 2008. Magnani, after spending some time elaborating on the theories of past scholars, arrives at his own theory, the main purpose of which is to reverse the thesis put forward by Ihm. Magnani asserts that the term *apiosus* derives from a misinterpretation of the Greek ἵππος σεληνίτης—"lunatic horse," that is, one suffering from epilepsy, which, on account of iotacism, became

5 Fischer (1980: 135): "lectio altera *opiosus* (cf. Chiron 278–280) spernenda uisa est Ihmio, ego dubius sum; similis uariatio *apopanax* / *opopanax*, *apobalsamum* / *opobalsamum*." The fact that the variant *opiosus*—found in the manuscript tradition of Chiron 260, 278, 279, 280 (see above)—was (rightly) rejected by Ihm is reported without comment in the index of Oder (1901: 326, s.u. *apiosus*): "Ihmius ad Pelag. 405 *opiosus* tamquam futilem lectionem omnino reprobat."

6 Fischer (1980: 135–136): "in lemmate capitis cum mentio fiat *cursus lunae* id est lunaticae passionis, . . . *apiosus* esse lunaticos manifestoque errore uocem ex Graeco σεληνίτης (falso σεληνίτης a Σελήνη) translatum [*sic*] esse Ihmio (cui assentior) probabile uisum est."

7 Gourevitch (1993: 261): "Ainsi il semble bien 1° que déjà dans la tradition vétérinaire antique, οἷστρος et *apis* se soient partagé les troupeaux; 2° qu'*apiosus* soit directement dérivé d'*apis*, sans passer par l'intermédiaire d'*apium*; 3° que la présence d'une des nombreuses herbes aux abeilles, l'ache (*apium*) dans le traitement de l'*apiosus* ne résulte que d'un jeu de mots inconscient et tardif."

8 The author cites Arist. *HA* 9.40.626a.22 and Plin. *Nat.* 11.60. Gourevitch also says that it was Io's persecution by the gadfly which gave her the idea for the derivation from *apis*; she refers to Aesch. *Supp.* 17–18, 307, 524–599 and Aesch. *Pr.* 589, 674–675, 681, 877–886.

ἵππος σελινίτης and so was translated into Latin as *equus apiosus*, primarily due to σέλινον (“celery”) being an ingredient in most remedies.⁹

A few words should be devoted to the theories briefly stated above before we elaborate our own views. We shall return shortly to the connection between *apiosus* and *apium* (“celery”), taken as a given by Ihm and confirmed—however hesitantly—by Fischer, but first let us consider Gourevitch’s hypothesis. The fact that Gourevitch’s claim is highly questionable has already been deftly exposed by Magnani, who has identified more than one point lacking in sufficient proof. Among his objections, the most important undoubtedly stems from the fact that the entries previously mentioned never once make reference to insect bites. The cause, instead, seems to be internal: the affected organ is the brain. An example of this can be found in Chiron 257 (see n° 4 above): *Quod si in una parte cerebri haec corruptio uenit et inundauerit, ex eadem parte doloris grauatus amens fit apiosus* (“If this disease goes into one part of the brain and spreads there, the animal, suffering pain in that part, and crazed, becomes *apiosus*”) and in the same paragraph: *Inde haec omnes ualitudines, quae e cerebro oriuntur*. The *apiosus* is in fact a horse suffering from a mental illness, although the illness itself has characteristics distinct from others of a similar kind: consider for example, Chiron 276 (see n° 6 above): *Ex hac re* [i.e. from the *distensio* or *distentio*, another disease that might affect the animal’s brain] *fiunt apiosi, insani, rabiosi, frenetici, cardiaci. Horum autem omnium cura capitis prima est*. All of which raises some questions: what would be the connection between a horse stung by a bee and those that were *insani*, *rabiosi*, *frenetici*, and *cardiaci*? And also, how would the staring, walking with difficulty, and slamming of the head against the manger be explained? Would all this be caused by the sting of a bee? The only explanation would be the similarity in their behaviour: the *apiosus* horse would behave—at least with regard to the turning in circles—in

9 Magnani (2008: 285–286): “Nelle fonti greche di Pelagonio i sintomi sopra descritti potevano ben essere ricondotti all’influsso diretto della luna, causa riconosciuta di attacchi epilettici e molti altri disturbi anche per l’uomo . . . L’ ἵππος σεληνίτης ο σεληνίτης (*equus lunaticus*), per effetto dello iotacismo, potrebbe essersi confuso con l’omofono σελινίτης (< σέλινον), anche e soprattutto per la presenza del σέλινον nelle pozioni curative. Una volta reso quest’ultimo con *apium*, la neoformazione *apiosus* diveniva quasi obbligatoria” (“In the Greek sources of Pelagonius, the above symptoms could well be traced to the direct influence of the moon, a known cause of seizures and many other conditions in man as well . . . The ἵππος σεληνίτης or σεληνίτης (*equus lunaticus*) could perhaps have been confused through iotacism with the homophone σελινίτης [< σέλινον], and especially because of the presence of σέλινον in the healing potions. Once it (σέλινον) was translated with *apium*, the newly formed word *apiosus* became almost obligatory”). Magnani had already put forward his thesis in Bompadre/Magnani/Cinotti (2008: 7).

a similar manner to one stung by a bee as the summariser of Gourevitch's article in *L'Année philologique* appears to have understood.¹⁰ However, Gourevitch herself, in a letter to me dated October 22, 2010, personally confirmed that in her opinion the *equus apiosus* has physically been stung by a bee. In light of such a statement, Gourevitch's explanation has to be completely discarded.

Let us now turn to the thesis presented by Ihm, specifically with regard to the title of chapter 29 of Pelagonius. This title was accepted by Fischer and used by Magnani to offer a precise explanation of the term *apiosus*: the pairing of *apiosus* with *σελινίτης*. Ihm's theory, without question, serves to restore the term *apiosus* to its proper context of *insania* albeit through *cursus lunae* or epilepsy. It has to overcome, however, some very serious obstacles. First, to my knowledge, there is no evidence for *σεληνίτης* meaning "epileptic," or indeed referring to any other disease. In addition, the adjective is most often referred to the noun λίθος. By contrast, *σεληνιακός* in the sense of "epileptic" is attested in Alex. Trall. 1.563, but there appear to be no occurrences of *σεληνιακός* derived from *σέλινον* "celery"¹¹ and the only three known occurrences of the adjective *σελινίτης* (*Geop.* 8, ext. 1 and 8.16; *Dsc.* 5.64) are all related to wine flavoured with *σέλινον*. Also worth noting is that in the Greek translation of Pelagonius *apiosus* is never translated;¹² in fact, the only kind of translation of the adjective known to us is itself a transliteration: see the title, quoted above (n° 18), of § 81 of the *Hippiatrica Cantabrigiensia*. Moreover, the very words *uel de cursu lunae* are absent in cod. *E*, which is more authoritative than *R*.¹³ What is more, no description of epileptic horses is found in the chapter in question. Now Magnani would explain this by saying that epileptic and *apiosus* are the same thing, and that the reason why there is no mention of *cursus lunae* in the chapter heading is that §§ 405–406 are missing from *E*.¹⁴ However,

10 *L'Année philologique* (1994) 65, 8816: "Employé comme adjectif ou comme nom en médecine vétérinaire, le terme *apiosus* désigne un cheval pris de vertige, fou. Les essais d'étymologie proposés jusqu'ici n'étant pas convaincants, on propose une nouvelle hypothèse: ce terme pourrait être un dérivé d'*apis* 'abeille', le cheval dit '*apiosus*' étant désigné comme piqué par une abeille."

11 The adjective *σεληνιακός* is translated as *lunaticus* in the Latin version of Alexander of Tralles (I thank Professor David Langslow for this information). In Georg. Pachym. *Quadr.* 2.2 τὴν *σεληνιακὴν* is of course equivalent to τὴν *σεληνιακήν*.

12 *Hipp. Ber.* 101.9 and 101.10 (the precepts are part of the chapter *περὶ μανίας καὶ λύσσης* ["about madness and rabies"]).

13 On the manuscript tradition of Pelagonius see Ortoleva (1998).

14 But how should we interpret the allusion to *cursus lunae* in the title of *R*, considering the fact that no remedies for epileptic horses are reported in the chapter? Perhaps that statement refers to a treatment for epilepsy once found in the chapter but not extant in surviving witnesses. Whoever wrote the chapter title may also have confused the *apiosus* horse with

a simple comparison of the descriptions of an epileptic and *apiosus* horse reveals that they are two very different things although it is said in Chiron 330 that the epileptic horse also turns round and round as if pushing a millstone. In this connection see Chiron 331:

Quodcunque iumentum caducum fuerit, sic eum intelligis. Saepius cadet diurnum ter uel quater. Aliquando cum ceciderit, subito contremescit toto corpore, et salivae per os eius multae effluent. Postmodum porrectus pro mortuo iacebit, non post multum subsurget et pabulum appetere quaerit.

If an animal is epileptic, you will observe the following tell-tale signs: it will often fall to the ground (three or four times a day). Sometimes, after it has collapsed, its body will immediately start trembling and a lot of saliva will come out of its mouth. Afterwards it will remain stretched out on the ground as if dead, but after a short time it will rise and try to reach the fodder.¹⁵

Also, how can the occurrences in the *Mulomedicina Chironis* be explained? Could all of them come from Pelagonius? But this is very unlikely, because all such cases of dependence of Pelagonius on the *Mulomedicina Chironis* would have to be proved. Or did both Pelagonius and the author of the *Mulomedicina Chironis* possibly make either direct or indirect references to *apiosus* from a lost Greek translation? Any such references would also have to be proved in a convincing way, especially given the marked difference between the two texts regarding the description of remedies. Hence, this hypothesis as well can be ruled out without hesitation.

3 *Equus apiosus*, “Capostorno” and “Grass Staggers”

As all the theories presented above have been shown to be incorrect or unverifiable one must start again from the beginning. In fact, in cases like this the

the epileptic one, or perhaps wanted to add the reference to the latter because any mention of mental illness would be incomplete without it, although there is no reference to any treatment for epilepsy among the remedies that follow. Certainly its absence from *E* (though, as mentioned above, this manuscript does not transmit §§ 405–406) sheds doubt on the original presence of the words *uel de cursu lunae* in the chapter title.

15 See also Chiron 333 (n° 9 above), where we are told to apply the cautery to the epileptic horse's head *similiter ut* [or *et*] *apioso*. The author was therefore well aware that there were two different diseases.

first step one should take is obviously to pick up a dictionary. By performing this very simple act, however, one is made aware of a very important piece of information surprisingly overlooked by scholars who have previously dealt with this problem. Here is what one finds in the *Vocabolario degli Accademici della Crusca*, fifth impression, *Glossario* [A–B], Florence, 1867, s.u. *apioso* and *appioso*:

Detto de' Cavalli quando sono affetti da quella malattia di cervello, che oggi chiamasi Capostorno. Dal lat. *appiosus*. Libr. Mascal. *F. R. 30*: Quando il sangue non riempie li pannicoli del cervello ... fassi l'animale apioso (Veg. *Mulom.* 2.2) e 33: Se neuno giumento ee appioso ..., girasi come fusse alla macina (Veg. *Mulom.* 2.10).

Said of horses affected by the disease of the brain today referred to as *capostorno*. From lat. *appiosus*. Libr. Mascal. *F. R. 30*: When the blood does not fill the meninges of the brain ... the animal becomes *apioso* (Veg. *Mulom.* 2.2) and 33: If an animal is *appioso* ..., it turns in circles as if it were at the millstone (Veg. *Mulom.* 2.10).

The text quoted in the *Vocabolario della Crusca* is a vernacular translation of Vegetius' *Digesta artis mulomedicinalis* of the fourteenth century, transmitted in cod. Florence, Biblioteca Medicea Laurenziana, *Redi* 120, parchment, fifteenth century. Further instances of the term *ap(p)iosus* are found in other vernacular translations of Vegetius—e.g. that of Giovanni Brancati dating from the fifteenth century—and texts on farriery that have Vegetius as a direct or indirect source—e.g. the fourteenth century work by Dino Dini.¹⁶ However, what is *capostorno* otherwise referred to as *capogatto*? It is a rather old-fashioned term—and even more obsolete is *capogatto*—, which designates an equine disease characterised by dizziness and vertigo. What follows is the detailed description from the famous work of Carlo Ruini (1530–1598), *Dell'anotomia [sic] et dell'infermità del cavallo*, first published in Bologna in 1598:¹⁷

Il capostorno del cavallo è intiera offesa della fantasia nella sua operazione; la quale gli offusca talmente i sensi, che gli leva quasi tutta la cognizione, e gli fa restar balordi e quasi insensati. ... Si conosce che il

16 On Dino Dini and the vernacular translations of Vegetius see Ortoleva (1996: 143–185). For the text of the translation of Brancati see Aprile (2001).

17 Ruini (1598: 2.59) (2.2.13) (I have updated the orthography).

cavallo tiene sempre il capo aggravato, e pesante, chino a terra, e nella stalla dentro alla mangiatoia, con la vista offuscata, con gli occhi oscuri, e gonfi, e sta come addormentato, e privo di lume, ed è pigro, tardo, e stupido; e col petto, o con la testa s'appoggia, e urta forte; e nel crescere del male, batte del capo ne i muri, e va intorno intorno; nell'andare camina sempre inanti, finché urta ne i muri, o in altra cosa, che intoppa; pigramente, e malamente movendosi.

Capostorno is a general condition which affects the mental faculties of the horse; an illness which dulls the senses so much that all knowledge disappears. It renders the animal confused and almost senseless . . . Well-known is the fact that the horse always keeps its head hung heavy, drooping to the ground, and that it stays in the stable inside the manger with its vision blurred and its eyes dark and swollen. The animal seems to be asleep and without sight; it is lazy, slow and stupid. It rests upon its breast or head, and bumps against things with force; and as the pain it feels increases, it beats its head against the walls of the stable. It goes around in circles, walking until it bumps into walls or any other obstacle, lazily and clumsily moving about.

It is also important to note that linking *apiosus* to vertigo is not a new approach even in Latin lexicography, since Henry Nettleship in 1889 had already explained Vegetius' *ap(p)iosus* as "afflicted with giddiness."¹⁸

Now that we have crossed the English Channel, a further step has to be taken: we shall compare the description of *capostorno* to the one of a disease known as *grass staggers*. Once again we turn to an old description of the illness, since in these cases we must place ourselves in the past and try as far as possible to see "with the eyes of the ancients." Let us consider the article *Grass Staggers* published in *The British Farmer's Magazine* in 1861.¹⁹

Where the faulty feeding still continues, and no treatment is attempted, matters gradually become worse. The unsteady gait is often visible in the fore as well as in the hind limbs. . . . The animal pokes his nose into a corner, and if possible, rests it for support on the manger or rail of a gate, or any other convenient object. . . . In bad cases the sickness is so great that the horse cannot stand, and down he goes, lying on his side with his

18 Nettleship (1889: 248): "Appiosus, afflicted with giddiness; of animals: Veget. Vet. 1.25.2; 3.10; 3.11.1."

19 "Grass Staggers" (1861: 237).

head drawn back, his lower lips pendulous, and his eyes almost insensitive to the light...; his eyes are wild and staring... Sometimes he will turn round and round before he falls, and lies stunned sick and groaning before he recovers or attempts to rise.

Therefore, *equus apiosus* = *capostorno* = *grass staggers*; there seems to be no doubt about this connection and I am certainly not the first to say so. Thus, neither bees nor iotacism have anything to do with the matter. This example highlights the fact that it is impossible to solve such problems without connecting the descriptions of the ancients with the reality of the situation while at the same time having the widest possible view of the literature on the subject. As for the meaning of the term, I think I have given enough answers.

4 The *apium rusticum* (or *agreste*) and the Etymology of *apiosus*

It is now time to consider the second question that naturally arises: why did the Romans call a horse suffering from grass staggers *apiosus*?

Apiosus comes from *apium* ("celery"). At this point I see no other possible explanation. Since *apium* refers to a plant, if a sick animal is called *apiosus*, this can only mean that its disease was correlated—whether figuratively or literally will be determined shortly—with the ingestion of *apium*. This, as previously mentioned, had already been correctly pointed out by Ihm. But how could a horse fall ill by eating celery, especially when *apium* itself had always been prescribed—along with other ingredients—to treat the *apiosus* in addition to many other diseases? Ihm, followed by Fischer, was uncertain about whether to attribute the name precisely to the fact that celery was among the ingredients in the healing potions or to some supposed sacred or mysterious property of the plant. That such a theory cannot be convincing, however, has already been clearly stated by the scholar who proposed it. The answer to our question should instead be sought in the fact that the Latin word *apium* does not only mean celery. It is enough to look at the lexicon of Jacques André:²⁰ in addition to the more common identifications with "celery" and "parsley," various others are recorded. Among these, of particular interest is the relationship André observes between a special type of *apium*—known as *rusticum* or *agreste* in Latin, σέλινον ἄγριον in Greek—and *Ranunculus sceleratus* L. or *Ranunculus sardous* Crantz. The herbarium of Pseudo-Apuleius and the so-called Latin Dioscorides are the sources most relevant to these identifications:

20 André (1985: 20–21). See also Stirling (1995: 68–70).

[Herba scelerata] Nomina herbae. A Graecis dicitur botracion, alii †choras, alii chloropis, alii Nilion, alii stalticen, alii cloropin, alii ioselinon, alii catas-talticen, alii †pheution, alii lycopnum, Siculi selinon agrion, Aegyptii senecon, Romani apium rusticum, alii herba scelerata, alii apiurisu. Nascitur locis humidis et aquosis. Si quis homo eam ieunus gustauerit, ridendo exanimatur, est enim caustica (Ps.-Apul. *Herb.* 8.11–17).

Names of the grass. It is called *batrachion* by the Greeks; others call it †*choras*, others *chloropis*. Others *Nilion*, others *staltice*, others *chloropis*, others *hyoselinon*, others *catasaltice*, others †*pheution*, others *lycopnus*. The Sicilians call it *selinon agrion*, the Egyptians *senecon*, the Romans *apium rusticum*, others *herba scelerata*, others *apiurisu*. It grows in damp and watery terrain. If a man tastes it on an empty stomach, he will die laughing, as it is caustic.

De uotraciū. Botraciū, quem multi apiu risu uocant, multe sunt illi[s] species. . . . Locis aquosis nascitur. Est alterum genus agrestis, uirga longa habens, folia multis locis incisa, qui multum in Sardinia nascitur, quem apiu agreste dicunt, cui uirtus est uiscida (Dsc. 2.161).

About *botracion*. *Botracion*, which many call wild smallage, has many species. . . . It grows in watery terrain. There is another variety with a long stem and very jagged leaves, which grows abundantly in Sardinia. It is known as *apium agreste* and has the characteristic of being an irritant.²¹

21 See also Dsc. 2.175.1: βατράχιον· οἱ δὲ σέλινον ἄγριον καλοῦσι. τούτου πλείονά ἐστιν εἶδη. . . . φύεται δὲ παρὰ ρέεθροις. ἔστι δὲ καὶ ἕτερον εἶδος χλωιδέστερον καὶ μακροκαυλότερον, ἐντομάς ἔχον πλείους τῶν φύλλων, πλείστον ἐν Σαρδονίᾳ γεννώμενον, δριμύτατον, ὃ δὴ καὶ σέλινον ἄγριον καλοῦσι (“Buttercup: some call it wild celery; there are many varieties of it. . . . It grows along rivers. There is also another variety which grows mainly in Sardinia with a longer stem and serrated leaves, fuzzier, very irritating, which is also called wild celery”); Dsc. 2.175 RV: σέλινον ἄγριον· οἱ δὲ βατράκιον, οἱ δὲ γελωτοποιός, οἱ δὲ μεθύουσα, οἱ δὲ Σαρδόνιον, οἱ δὲ ἀμέθυστον, οἱ δὲ ὑσσέλιον, οἱ δὲ ἵπποσέλιον, Αἰγύπτιοι μεθυού, Ῥωμαῖοι ἄπιουμ, οἱ δὲ ἄπιου<μ> ἱρσοῦ<τουμ>, οἱ δὲ αὐριμετέλλουμ, Θούσκοι ἄπιου<μ> ρανίνου<μ>. σέλινον ἄγριον ἕτερον· οἱ δὲ φρώνιον, οἱ δὲ ἀκιδωτόν, οἱ δὲ βατράκιον, Ῥωμαῖοι ἄπιου<μ> φλάου<ουμ> (“Wild celery: it is also called ranunculus, plant which makes one smile, plant which makes one drunk, *sardonion*, *amethystos*, porcine celery, horse parsley; the Egyptians call it μεθύου; the Romans *apium*, *apium hirsutum*, *aurimetellum*; the Etruscans *apium raninum*. The other wild celery: some call it toad parsley, pointed parsley, ranunculus, the Romans *apium flauum*). Finally, with regard to medieval Latin, see *MLW* s.u. *apiaster* 2.745.8–11 and s.u. *apium* 1.748.19–22 (*apium agreste*) and 748.56–61 (*apium rusticum*).

Ranunculus sceleratus—in English known as “cursed buttercup,” in Italian *ranunculo di palude*—and *Ranunculus sardous*—in English “celery-leaved buttercup,” in Italian *ranuncolo sardo*—belong to the *Ranunculaceae* family, common in moist places along the Italian peninsula. A key feature of the plant is that its leaves are somewhat similar to those of celery or parsley but highly toxic. An important reference to a toxic plant similar in appearance to celery, from which the Iberians used to make a poison, can also be found in Strabo (3.4.18):

Ἰβηρικὸν δὲ καὶ τὸ ἐν ἔθει [εἶναι] παρατίθεσθαι τοξικὸν ὃ συντιθέασιν ἐκ βοτάνης σελίνῳ προσομοίας ἄπονον, ὥστ' ἔχειν ἐν ἐτοίμῳ πρὸς τὰ ἀβούλητα.

It is also an Iberian custom to keep in store a poison that does not cause pain and which is extracted from a plant similar to celery, so as to have it handy in extreme cases.

Another important point to consider is that *apium rusticum* was also known in Latin as *herba Sardoa* or *Sardonian* because it was thought to have originated in Sardinia and as *apium risus*—in Italian *appioriso*—because, if ingested, it would contort the facial muscles in such a way as to make it seem that the patients were laughing hence the expression “sardonic smile.”²² There are many ancient sources relating the *herba Sardoa* to *apium*.²³ In Greek, two of them are particularly significant:

πλὴν δὲ ἡ βοτάνης μιᾶς καθαρεύει καὶ ἀπὸ φαρμάκων ἡ νήσος [*scil.* ἡ Σαρδῶ] ὅσα ἐργάζεται θάνατον· ἡ πόα δὲ ἡ ὀλέθριος σελίνῳ μέν ἐστιν ἐμπερής, τοῖς φαγοῦσι δὲ γελῶσιν ἐπιγίνεσθαι τὴν τελευτὴν λέγουσιν (Paus. 10.17.13).

The island of Sardinia has no poisonous plants that cause death, except for one grass. This fatal grass is similar to celery, but it is said that those who eat it die laughing.

22 Compare Sol. 4.4: *herba Sardonian, quae in defluuiis fontaneis prouenit iusto largius. Ea si edulio fuerit nescientibus, nervos contrahit, diducit rictu ora, ut qui mortem oppetunt intereant facie ridentium* (“Sardonian grass, which grows in abundance at the source of springs. If it is swallowed unconsciously, it makes the muscles contract and opens the jaws so that the victims perish with a smile on their faces”).

23 I am indebted to a very detailed article by G. Paulis (1993: 26–31) which drew my attention to many of them.

Σιληνός δὲ ἐν δ' τῶν περὶ Συρακούσας [FGrH 175.5] λάχανον εἶναι παρὰ Σαρδονίοις ἡδύ, σελίνῳ ἐμφερές, οὗ τοὺς γευσασμένους τάς τε σιαγόνας <σεσηρέναι> καὶ τὰς σάρκας αὐτῶν ἀποδάκνειν (Paus. Gr. s.u. Σαρδόνιος γέλως [= Phot. Lex. s.u. = Suid. σ 124 A.]).

In the fourth book of the *History of Syracuse*, Silenus talks of a kind of sweet vegetable similar to celery that can be found in Sardinia; those eating it grind their jaws and bite their own flesh.

In both testimonies it is said that Sardonian grass is σελίνῳ ἐμφερές, “like celery.”²⁴ In Latin as well, in two passages of Servius—one with explicit reference to Sallust—and in other later authors including Isidore of Seville²⁵ this

24 Compare also Philox. fr. 591 Theodoridis (*apud* Zenob. Ath. p. 356 Miller): λέγουσι δέ, ὅτι ἐν Σαρδόνι γίγνεται βοτάνη σελίνῳ παραπλησία, ἣν οἱ προσενεγκάμενοι δοκοῦσι μὲν γελᾶν, σπασμῷ δὲ ἀποθνήσκουσι (“It is said that a plant very similar to celery grows in Sardinia: whoever eats it seems to laugh but instead dies in the midst of contractions”); *Schol. Hom. Od.* 20.302 (*Schol. uet.*): ἔνιοι δὲ γίνεσθαι λέγουσιν ἐν Σαρδοί τῇ νήσῳ σέλινον τοιοῦτον, ὃ τοὺς φαγόντας ξένους μετὰ σπασμοῦ σεσηρότας ἀπόλλυσθαι ποιεῖ (“Some say that on the island of Sardinia there is a special type of celery that kills the foreigners who eat it by giving them contractions and putting a grin on their faces”); *Schol. in Plat. (Schol. uet.) R.* 337a: ἡκουσα δέ, φησὶν ὁ Ταρραῖος, ἐγχωρίων λεγόντων ὅτι ἐν Σαρδόνι γίγνεται βοτάνη σελίνῳ παραπλήσιος, ἥς οἱ γευσάμενοι δοκοῦσι μὲν γέλῳ, σπασμῷ δὲ ἀποθνήσκουσιν (“I once heard—says Lucillus of Tharra—some local people saying that a plant very similar to celery grows in Sardinia: whoever tastes it seems to die laughing but does so with facial contractions”); Tzetz. *Schol. in Hes. Op.* 59 (p. 83 Gaisford): Σαρδῶ τις ἔστι νήσος Ἰβηροτρόφος, / ἐν ᾗ βοτάνη φθαρτικὴ γῆς ἐκτρέχει, / σελινοειδής, Σαρδάνη καλουμένη. / βεβρωμένη δὲ τοῖς ἀπείροις αὐτίκα / σπασμούς τε ποιεῖ, καὶ γελῶτων ἐμφάσεις, / καὶ πότμος εὐθύς, καὶ γελάσιμος μόρος (“There is an island, Sardinia, nourisher of the Iberians, / on which a poisonous grass similar to celery / sprouts from the earth, called *sardane*. / If someone unknowingly eats it, it soon after / makes contractions and creates the impression of a smile, / and this is followed by an immediate death and a ridiculous end”); Tzetz. *Schol. in Lycophr. Alex.* 796: ἐν ᾗ νήσῳ Σαρδοί βοτάνη γίγνεται ὁμοία σελίνῳ ἥς οἱ γευόμενοι σπασμῷ κατεχόμενοι ἀκουσίως γελῶσι καὶ οὕτως τελευτῶσι (“On the island of Sardinia there grows a plant similar to celery: those who taste it, soon in the throes of contractions, laugh without intending to and, in this way, die”).

25 Philarg. *Verg. Ecl.* 4.41: *Sardonia herba apio similis iuxta ripas nascitur in Sardinia insula, quam si quis manducauerit, risu moritur* (“Sardonian grass, similar to celery, grows in humid areas on the island of Sardinia: whoever eats it, dies laughing”) ~ *Schol. Verg. Bern. Ecl.* 4.41: *Sardonia herba similis apio iuxta riuos nascitur in Sardinia insula, quam si quis manducauerit, risu moritur* (“Sardonian grass, similar to celery, grows next to streams on the island of Sardinia: whoever eats it, dies laughing”); Isid. *Orig.* 14.6.40: *Venenum quoque ibi [scil. in Sardinia] non nascitur, nisi herba per scriptores plurimos et poetas memorata,*

grass is said to resemble celery or wild celery (*apiastrum*). The following are the testimonies from Servius:

‘et fallax herba ueneni’ non cicutam dicit, quae omnibus nota est, sed illam Sardoam, quae apiastri similis homines decipit (Seru. *Ecl.* 4.24).

With the words “deceptive and poisonous grass” Virgil is not referring to the hemlock, which is known to all, but to Sardinian grass which, similar to the *apiastrum*, is deceptive to people.

in Sardinia enim nascitur quaedam herba, ut Sallustius dicit [*Hist.* fr. 2.10], apiastri similis. Haec comesa ora hominum rictus dolore contrahit et quasi ridentes interimit, unde uulgo Σαρδόνιος γέλως (Seru. *Ecl.* 7.41).

In Sardinia, in fact, a plant grows that, as Sallust says, is similar to the *apiastrum*. This, if ingested, contorts people’s faces, making them open their mouths because of the pain, and kills them while they are laughing, as it were; hence, the origin of the term “sardonic smile.”

In addition to these testimonies there is a very interesting one from Pliny mentioning an *apiastrum uenenatum* found in Sardinia:

Apiastrum Hyginus quidem melissop<h>yl<l>um appellat, sed in confessa damnatione est uenenatum in Sardinia. Contextenda enim sunt omnia ex eodem nomine apud Graecos pendentia (Plin. *Nat.* 20.116).

It is true that Hyginus calls lemon balm *apiastrum*, but there is no doubt that this plant is labelled as poisonous in Sardinia. All those things that the Greeks group under the same name should in fact be put together.

To conclude, of great value for this analysis is the following epigram from the *Anthologia Palatina* about a certain Sophocles who died laughing εἴδατι Σαρδῶνι σελίνοις:

apiastro similis, quae hominibus rictus contrahit et quasi ridentes interimit (“Also, nothing poisonous grows there [in Sardinia], except the plant, mentioned by many writers and poets, similar to wild celery, that makes people contract the openness of the mouth, and kills them while they are laughing, as it were”); *Schol. Iuu.* 1.158 (2) (ed. Grazzini [2011]): *Aconita herba est uenenifera apio similis quae gustata stupore nimio occidit* (“Aconite is a poisonous herb similar to *apium* which, if ingested, renders one senseless and kills.”) See also the statements in Dioscorides quoted in n. 21.

Ἐνθάδ' ἐγὼ Σοφοκλῆς στρυγερὸν δόμον Ἄϊδος ἔσβην
κάμμορος, εἶδατι Σαρδῶω σελίνιοιο γελάσκων (AP 7.621.1–2).

I, Sophocles, wretch, came in the deadly home of Hades
laughing because of having eaten Sardinian celery.²⁶

Therefore, for the purpose of this study, it is essential to have established: first, that the *apium rusticum* or *agreste* or *apium risus* or *herba Sardoia* in Latin—σέλινον ἄγριον or Σαρδόνιον in Greek—was a toxic plant, and second, that this plant owed some of its names to its similarity to celery.

5 Possible Identifications of the *apium rusticum* or *agreste*

Unlike André, who identified *apium rusticum* or *agreste* with *Ranunculus sceleratus* L. or *Ranunculus sardous* Crantz, Giulio Paulis had, probably correctly, identified it with *Oenanthe crocata* L., “hemlock water dropwort.”²⁷ Paulis based his opinion on two facts: first, that *Ranunculus sceleratus* L. and *Ranunculus sardous* Crantz are not confined to Sardinia, but widespread in Europe, and, second, that *Oenanthe crocata* L., which is very similar to celery and highly poisonous, may cause contractions of the levator muscles of the jaw.²⁸ Recent research done in Italy has confirmed such a connection through the use of chemical analysis.²⁹

However, it is best not to put too much faith in these identifications. In the ancient world and beyond, especially in everyday practice, the names of

26 Finally we should consider Eust. *Comm. ad Hom. Od.* 20.302 (2.238 Stallbaum) (drawing of course on earlier sources), who says simply: ἕτεροι δέ φασιν, ἐν Σαρδοί νήσῳ ἐπέκεινα Σικελίας τῇ καὶ Σαρδόνι σέλινον φύεσθαι, οὗ τοὺς ἐμφαγόντας ξένους μετὰ σπασμοῦ ὀλλυσθαι σεσηρότας, ὡς εἶναι σαρδόνιον ἢ σαρδάνιον γέλωτα τὸν μετὰ ὀδύνης (“Others say that on the island of Sardinia, beyond Sicily, celery grows: foreigners who ingest it die with contractions, gnashing their teeth. This is why the sardonic or sardanic laugh is that which is mixed with pain”).

27 Paulis (1993: 31–38).

28 Also very interesting for our purposes are certain names in the Sardinian dialects of *Ranunculus sceleratus* (*appiu búrdu*) and above all of *Oenanthe crocata* (*áppiu arèste*; *áppiu búrdu* and *isáppiu*, derived, according to Paulis [1993: 35–36], from a form *risáppiu*, connected to *apium risus*), which clearly demonstrate how the concept of the existence of a poisonous *apium* has survived to this day. See Paulis (1993: 34–36), who also mentions names related to celery by which *Ranunculus sceleratus* is known in other languages.

29 Appendino *et al.* (2009).

poisonous plants similar to celery could well overlap. Paulis³⁰ also believes, again probably correctly, that the name μεθύουσα (“that which makes drunk”), which is found in Pseudo-Dioscorides, and the indication in Silenus that the plant was ἡδύ (“sweet”), would suggest the hemlock (*Conium maculatum* L.), whose stem is edible and sweet-tasting but which has intoxicating properties if ingested in large quantities.³¹ One should note, however, that like *Apium graveolens* L. (“celery”), other plants, such as *Oenanthe crocata* L., *Conium maculatum* L. and *Aethusa cynapium* L. (another poisonous plant, also known as “fool’s parsley” or “fool’s cicely”) are also part of the *Apiaceae* or *Umbelliferae* family and can be easily confused with each other—as in fact happens—by nonexperts.³² The possible identification of the *apium rusticum* with hemlock (*Conium maculatum* L.) is a matter of extreme importance, to which we shall return shortly.

6 Causes of the Grass Staggers According to Modern Analysis, and Donkeys Eating Hemlock

Now, however, our attention must turn once more to the *capostorno*, or rather to the disease which—as previously seen—the British call *grass staggers*, and the French *vertigo du cheval*. The disease has been described, but nothing has been said about its cause. Once again, let us turn the clock as far back as

30 See Paulis (1992: 149) and Paulis (1993: 38).

31 See Lucr. 5.899-900 and Plin. *Nat.* 25.151: *Semen habet noxium; caulis autem et uiridis estur a plerisque et in patinis* (“It has a poisonous seed, but the stem is eaten by many both raw and cooked in a pan”). The fact that hemlock is edible is also found in Luigi Anguillara (d. 1570) (1561: 273): “li germi novi della volgar Cicuta, come mi è stato affermato a Pesaro, quando escono nella primavera fuor della terra, sono mangiate col pane da’ fanciulli; della qual cosa mi sono meravigliato grandemente” (“as was brought to my attention in Pesaro, the new buds of common hemlock, upon sprouting from the earth in the spring, are eaten with bread by children, a sight at which I marvelled greatly”). Camarda (1984: 150; then followed by Paulis [1993: 151]) very significantly comments: “i fusti giovani, mondati della parte più esterna, sono mangiati crudi. Hanno un sapore dolciastro, come ho constatato personalmente, ma quando se ne consuma in quantità notevole provocano inebriamento” (“the young stems, trimmed of the outermost part, are eaten raw. They have a slightly sweet taste, as I have learned at first-hand, but when they are consumed in large quantities cause a sense of euphoria”). See also Camarda/Cadeddu/Larese/Ruiu (1986: 115): “lo stelo . . . si mangia, ma provoca se ingerito in quantità senso di euforia e inebriamento” (“the stem . . . is edible, but if ingested in excess, causes a sense of euphoria and intoxication”).

32 On confusion between *Oenanthe crocata* and *Conium maculatum* in Sardinia, see Camarda (1989–1990: 175) and especially Paulis (1993: 37).

possible and browse the interesting article by William Dick, professor of veterinary medicine in Edinburgh, which appeared in 1859 in a Scottish review of agriculture:³³

It occurred most commonly among horses going at grass in low wet pastures, where the grass was coarse and rank; and it was also supposed to arise from their eating a plant possessing, it was believed, poisonous quality called nagwort, or staggerwort (*Senecio jacobaea*), or some other poisonous herb, which grows most abundantly in the summer and autumn.

Senecio jacobaea Mill., in English commonly *ragwort* and in Italian *Senecione di S. Giacomo* or *erba colderina*, is a plant poisonous to humans and animals, and if consumed in large quantities can cause irreversible cirrhosis of the liver.³⁴ This could all begin to make sense.

But there is more. Let us dwell on what Ignazio Camarda goes on to say about hemlock after he has noted, as mentioned above, that its stalk is edible but intoxicating if ingested in large quantities:³⁵

Il somaro pare che [ne] sia molto ghiotto (*su molente s'imbriga come unu omine che sinche vivet una cuppa 'e vinu*), ma s'inebria come un uomo che si è scolato un barile di vino! Ciò è in accordo con il nome di *imbriaga molentis* con cui viene indicata questa specie a Tortolì (Cossu).

The donkey seems to be very fond of it, . . . but it gets as inebriated as a man who has drained a cask of wine! This observation agrees with the

33 Dick (1857–1859: 468).

34 See, for example, Swick (1981) and Passemard (2012). There is a significant literary reference in the epistolary novel by Stephen Fry (1994: esp. 175 and 244–245), which tells of a mare which had been mistakenly diagnosed as poisoned by *Senecio jacobaea* and instead turned out only to have been drinking whisky. Magnani (2008: 285), for his part, took up the idea that the symptoms of the *apiosus* horse could be attributed to the ingestion of an excessive quantity of St. John's wort (*Hypericum perforatum* L.), but unfortunately did not follow through with this important idea. See also Bompadre/Magnani/Cinotti (2008: 7).

35 Camarda (1986: 115–116). This information was repeated by Paulis (1992: 151). In a letter dated April 30, 2011 Camarda also kindly informed me that “it is actually true that in Sarule, a little town in Central Sardinia (not in Tortolì [as stated in Camarda/Cadeddu/Larese/Ruiu (1986)]), it [*Conium maculatum* L.] is called *imbriaga molentis* (i.e. “donkey drunk-maker”) because after the feast the donkey rolls about apparently giggling as if drunk.”

name *imbriaga molentis*, by which this species is referred to in Tortoli (Cossu).³⁶

The fact that donkeys eat hemlock is found in older sources too. A very interesting account is that of the veterinarian Giovan Battista Trutta who, in his treatise *Novello giardino della prattica et esperienza*, first published in Naples in 1699, wrote as follows (1.3.84):³⁷

Mangiando li somari con altri animali la cicuta, con la semenza dell'u-squiamo [*sic*] di quella specie rossa, in poco tempo li vedrete andare balordi, e storditi di testa a guisa d'ubbriachi, ciò cagionato dalla fumosità di detta erba, che li conturba lo stomaco, con mandare li vapori alla testa.

When donkeys eat hemlock with other animals, along with the seed of the red species of henbane, you will shortly see them going around in a stupor and stunned like drunkards, this being caused by the gassiness of the herb, which disturbs their stomachs and sends vapours to the head.³⁸

36 A similar name of the hemlock is the Sicilian *addurmisciscecchi* ("donkey sleep-inducer"), see Piccitto (1977: 61).

37 Trutta (1699); the description of the disease is followed by the treatment. The Naples edition of 1785 is cited because at the time when I ordered the book (June 3, 2011) the copy of the first edition of 1699 held by the Biblioteca Nazionale in Naples (coll. XLIV 4–5) was not available for consultation as the section in which it is kept was closed. However, I thank the staff for their kind assistance.

38 On donkeys eating hemlock see again Anguillara (1561: 273): "ancora nell'Abruzzo al castello chiamato Goriano, gli asini la mangiano senza uno minimo nocumento" ("even in Abruzzi in the castle called Goriano [today Goriano Sicolì], donkeys eat it without any harm"). However, Pietro Antonio Michiel (1510–1576), citing Anguillara in his *Cinque libri di piante* (ms. *Marc. it.*, cl. II, 26–30 [= 4860–4864], Michiel [1940: 472]), significantly adds: "pur diventano stupidi" ("but they become fools"). See also de Toni (1910: 640). Michiel's addition depends on the commentary on Dioscorides by Pier Andrea Mattioli (1501–1578); the following lines are from the Latin version (Mattioli [1554: 482]): "Caeterum in Italia constat cicutam non adeo exitialem esse. Eam in Hetruria si asini depascantur, profundissimo somno, et torpore capiuntur, ita ut non tantum stupidi, sed plane mortui uideantur. Id quod aliquando rusticos huius rei ignaros fefellit: nam dum asinis, quos mortuos credebant, pellem ad usum detraherent, accidit mirum, quod in medio fere operis asini expectrecti sunt, non sine magno exoriantum terrore, atque ingenti spectantium risu" ("But in Italy the hemlock does not seem to be so poisonous; in Tuscany, if donkeys eat it, they enter into such a deep sleep and torpor as to appear not only stunned but also dead. And this fact once deceived farmers who were ignorant of

Also important is what Julius Caesar Scaliger says in his *Exotericae exercitationes* of 1557:³⁹

Asellos uidimus multum oscitantes, deinde in anfractuosos gyros circumactos concidere.

We saw donkeys yawning a lot and then going round in circles and collapsing.

Thus, a donkey which had eaten a large amount of *apium rusticum* would become dazed and drunk, and sometimes turning around: in a word, that donkey would become *apiosus*. In my opinion, there is nothing more to say at this point on the etymology of *apiosus*. One can only wonder where all of the erroneous interpretations have come from.

All that needs to be added is that nowadays the most common name for the disease, which also affects cattle and sheep, is *Ryegrass Staggers*, as it seems to be triggered by the ingestion of ryegrass. It has become apparent that endophytic fungi, which produce a toxin very harmful to animals, can nest in the cells of such a plant. This evidence has been discovered only thanks to recent research conducted in New Zealand.⁴⁰ Therefore it should be stressed that the true causes of the disease of the *equus apiosus* have been known for only a few years: toxins of certain fungi.

7 Causes of the Grass Staggers According to the Ancients

When looking back at the past, a question arises: why in the Latin texts on veterinary medicine is there no mention of the ingestion of poisonous plants?⁴¹ Instead, *apiosus* is treated as a disease of the brain and is associated with other diseases related in some way to *insania*. An explanation must be found in the

such effects. While they were skinning the donkeys which they believed were dead, a miracle happened: when the work was about half done, the donkeys woke up, much to the alarm of those doing the skinning and to the considerable amusement of onlookers").

39 Scaliger (1557: 210^v; *Exerc.* 152).

40 On this subject see, for example, Cao/Koulman/Johnson/Lane/Rasmussen (2008); Kemp/Bourke/Wheatley (2007).

41 It was precisely this fact which made Magnani (2008: 285) abandon the hypothesis regarding the ingestion of St. John's wort.

fact that, while modern studies, especially in the English-speaking world, rely heavily on a connection between food and disease, for the ancients the relationship between horses suffering from the grass staggers and donkeys drunk from eating too much *apium rusticum*, and therefore called *apiosi*, was established only by similarity. The *apiosus* animal showed symptoms similar to the donkey that had ingested large amounts of hemlock, but of course could not be identified with it since its disease was far more serious and certainly not temporary—after all, as previously seen, the real causes of the grass staggers are different. For these reasons, the ancients developed the idea that the disease was an internal affliction of the brain. In this regard the description of Ruini⁴² can be taken as an example but similar descriptions can also be found in almost all nineteenth century Italian treatises on veterinary medicine which I have so far consulted.⁴³

È cagionata questa infirmità da materia mista, nella quale perlopiù la frigidità soprabonda, accompagnata alle volte con umori ventosi, o sia nel cervello istesso, o in tutto il corpo, o nelle membra, che hanno col cervello comunicanza.

This malady is caused by mixed material, in which cold generally predominates, accompanied at times by windy humours, whether in the brain itself or throughout the body with which the brain communicates.

8 An Adjective Akin to *apiosus*: *elleborosus*

A further note is needed on the adjectival form *apiosus*. As J.N. Adams⁴⁴ has very clearly demonstrated, in medical and veterinary language adjectives ending in *-osus* are derived from nouns indicating either the disease or the part of the body affected by disease. Examples are *bulimosus* (“suffering from bulimia”), *coriaginosus* (“suffering from *coriago* [unidentified disease]”), *far-ciminosus* (“suffering from farcy”), *ozaenosus* (“suffering from *ozaena* [a not well identified disease]”), *suspiriosus* (“suffering from troubled breathing”), or *suffraginosus* (“suffering from inflammation of the hock, spavined”), *gambosus* (“suffering at the hock”), and *lienosis* (“affected by a disorder of the spleen”).

42 Ruini (1598: 2.60).

43 See for example Crepetti (1830: 4–7) and Bucellati (1844: 8–9). Also worthy of consideration is what Trutta says in the passage quoted above.

44 Adams (1995: 338–339).

Apiosus would therefore at first appear to be an exception to this rule since it derives from the noun (*apium*) which designates the substance ingested by the animal.

Gourevitch rightly observed, in a brief note published in 1994/5,⁴⁵ that there is another adjective closely akin to *apiosus*: *elleborosus*, although, as we have seen, she later abandoned the idea. This word is found twice in Plautus:

senex hic elleborosust certe (*Most.* 952)
this old man is definitely *elleborosus*

quaeso, sanus es? elleborosus sum (*Rud.* 1006).
are you yourself? I am *elleborosus*.

In both cases *elleborosus* seems to mean more or less “crazy.” As was well known in antiquity and later too, the hellebore, in itself a toxic plant, was used to treat madness.⁴⁶ Plautus himself says:

elleborum hisce hominibus opus est (*Pseud.* 1185).
these men need hellebore.

However, as has already been noted, and this is what is most interesting, *elleborosus* would literally mean “full of hellebore,”⁴⁷ just as *uinosus* means “drunk,” “drunkard,” two adjectives linked by Friedrich Marx.⁴⁸ It should also be noted that in Greek the verb ἐλλεβοριᾶω seems to mean not only “to treat someone with hellebore,”⁴⁹ but also “to be crazy,” as in a fragment of the comic poet Callias, where it is said that a madman “was in need of hellebore” or, perhaps better, “he was being treated with hellebore”:

ἐκ δὲ τοῦ ἐλλεβόρου καὶ ἐλλεβοριᾶν, τὸ ἐλλεβόρου δεῖσθαι, ὡς Καλλίας φησὶν
(Call. fr. 28 K. = 35 K.-A.), καὶ ἐλλεβορίζειν (Phot. ε 640 Theod. [= *Etym.*

45 Gourevitch (1994–1995: 153).

46 On the hellebore in ancient times see the detailed commentary by Girard (1986).

47 See for example O’Brien-Moore (1924: 52, n. 5): “Helleborosus should mean ‘full of hellebore,’ but in Plautus it seems to mean ‘needing it’”. Ernout too (1949: 39) gives what is, in my opinion, a not very good explanation of the term “qui a besoin d’ellébore.”

48 Marx (1928: 184).

49 This is the main meaning of ἐλλεβορίζω and it seems to be the meaning of ἐλλεβοριᾶω in [Hp.] *Epist.* 20 (9.386 L.): Εἰσήχθην μὲν οὖν, ᾧ Δημόκριτε, ὡς μεμνηνὸτα ἐλλεβοριῶν, οὐ καταμαντευσάμενος ὅστις ποτ’ εἴης (“So I was called to administer hellebore to you, Democritus, as to a madman, not guessing what kind of person you were”).

M. 331.29; Suid. ε 770; *Schol. Ald. Aristoph. Vesp.* Koster 1489d; Ps.-Zonar. ε Tittmann 692.7]).

from “hellebore” are derived both ἑλλεβορίαώ “to be in need of hellebore,” as Callias says, and ἑλλεβορίζω.

Of equal interest is the verb ὕοσκαμάω—also attested in the language of Attic comedy—which, in view of the fact that the ingestion of henbane could lead to delirium, ends up meaning simply “to be crazy”:

Ὑοσκαμάν: μεμηνέναι, παραπαίειν. Φερεκράτης Κοριαννοῖ· ὕοσκαμάς ἀνὴρ γέρων (Pherecr. fr. 72 K. 78 K.-A.) (Phot. p. 619.8 Porson [= *Etym. M.* 777.18; Suid. υ 123]).

“to be mad, beside oneself.” Pherecrates in the *Corianno* says: “you’ve become crazy in your old age.”⁵⁰

Parallels with *elleborosus* and *uinosus* also appear to be significant in that they confirm once again that *apiosus* did not originally designate the animal suffering from grass staggers, but merely indicated that the animal had gorged on *apium* (*rusticum* or *agreste*).

9 The Occurrence in the “Hermeneumata Celtis”: *appiosus* μετέωρος

I would like to make one final note to conclude with. At the beginning of this work it was said that the term *apiosus* is found “almost” exclusively in veterinary texts. An instance of the adjective is in fact also found in the bilingual glossary known as *Hermeneumata Celtis* (12.972): *appiosus* μετέωρος. This new occurrence had not previously been known to those who have dealt with this question, and it was by chance that I myself became aware of it on hearing

50 Compare also Hesych. υ 209: ὕοσκαμάς· μαίνη, ἀπὸ τῆς πόας (“‘you are crazy’: ‘you are out of yourself’, from the name of the plant”). I thank my friend Ferruccio Conti Bizzarro for having drawn my attention to the fragments of the two comic poets—compare also Conti Bizzarro (1988–1989: 283), who conveniently cites passages in which henbane is associated with madness—and for all the help which he generously provided. Imperio (1998: 250) should also be consulted, where the meanings of the two verbs are rightly distinguished from each other.

a talk given by Rolando Ferri on the third of September 2009 in Lyon at the Ninth International Conference on Vulgar and Late Latin. Ferri was inclined to believe, though with a measure of doubt, that μετέωρος meant “undigested” or “inflated,” “swollen.”⁵¹ But he was wrong. If we in fact return for a moment to the symptoms displayed by the *apiosus* horse, we realise that the adjective μετέωρος refers not so much to the body as to the mind. In this connection see this passage of Plutarch where the term has the meaning of “uncertain,” “confused”:

οὕτω σοι διασέσεισμαι καὶ γέγονα μετέωρος ὑπὸ Στωικῶν ἀνδρῶν (Plu. *De comm. not. adu. Stoic.* 1059a).

I have been so shaken and confused by certain Stoics.

Above all consider the following examples, in which the noun μετεωρισμός seems to mean a genuine mental disorder:

καὶ ῥίπτασμον τοῦ σώματος διὰ τὴν ἔνδον ταραχὴν καὶ μετεωρισμὸν γνώμης (Hp. *Acut. (Spur.)* 7.39 [2.424 L.]).

both a shaking of the body due to internal disruption and a disturbance of the intellect.

στάσεις δὲ καὶ μετεωρισμοὺς ψυχῆς (Vett. Val. 7.6).

blackouts and disturbances of the mind.

μετεωρισμὸς τῆς κεφαλῆς (Oribas. *Ecl.* 46.2).

dizziness.

Does the gloss of the *Hermeneumata Celtis* indicate that the adjective *apiosus* could also be attributed metaphorically to human beings? Maybe.⁵² It is more certain that the glossator thought that the word could be applied to a subject in a state of mental confusion. I think that at this point the question of *apiosus* can be considered definitively resolved.

51 I thank R. Ferri for having generously sent me a copy of his contribution before being printed in the Proceedings. See now Ferri (2012: 760).

52 As we have seen, human beings have also eaten the stalk of the hemlock for a long time (see n. 31 above).

Bibliography

- Adams, J.N. (1995), *Pelagonius and Latin Veterinary Terminology in the Roman Empire*, Leiden/New York/Cologne.
- André, J. (1985), *Les noms des plantes dans la Rome antique*, Paris.
- Anguillara, M.L. (1561), *Semplici*, Venice.
- Appendino, G./Pollastro, F./Verotta, L./Ballero, M./Romano, A./Wyrembek, P./Szczeraszek, K./Mozrzymas, J.W./Taglialatela-Scafati, O. (2009), "Polyacetylenes from Sardinian *Oenanthe fistulosa*: A Molecular Clue to *Risus Sardonius*," *Journal of Natural Products* 72.5, 962–965.
- Aprile, M. (2001), *Giovanni Brancati, traduttore di Vegezio. Edizione e spoglio lessicale del ms. Vat. Ross. 531*, Galatina.
- Belardinelli, A.M./Imperio, O./Mastromarco, G./Pellegrino, M./Totaro, P. (1998), *Tessere. Frammenti della commedia greca*, Bari.
- Biville, F./Lhommé, M.-K./Vallat, D. (eds.) (2012), *Latin vulgaire–latin tardif 9* (Actes du 9^e colloque international sur le latin vulgaire et tardif, Université Lumière Lyon 2, 2–6 septembre 2009), Lyon.
- Bompadre, G./Magnani, M./Cinotti, S. (2008), "Problemi tipici nell'*Ars veterinaria* di Pelagonio," in: Veggetti/Cartoceti (eds.), 3–8.
- Bucellati, A. (1844), *Del capostorno o balordone dei cavalli*, Milan.
- Camarda, I. (1984), *Ambiente e flora del Monte Albo (Sardegna centro-orientale)*, Casale Monferrato.
- (1989–1990), "Ricerche etnobotaniche nel comune di Dorgali (Sardegna centro-orientale)," *Bollettino della Società sarda di scienze naturali* 27, 147–204.
- /Cadeddu, C./Larese, G./Ruiu, D. (1986), *Introduzione all'ambiente di Monte Gonare*, Cagliari/Sassari.
- Cao, M./Koulman, A./Johnson, L.J./Lane, G.A./Rasmussen, S. (2008), "Advanced Data-Mining Strategies for the Analysis of Direct-Infusion Ion Trap Mass Spectrometry Data from the Association of Perennial Ryegrass with Its Endophytic Fungus, *Neotyphodium lolii*," *Plant Physiology* 146.4, 1501–1514.
- Conti Bizzarro, F. (1988–1989), "Note a Ferecrate," *Museum criticum*, 23–24, 259–292.
- Crepetti, L. (1830), *Della malattia del cavallo, chiamata vertigine e volgarmente capostorno*, Milan.
- de Toni, E. (1910), "Luigi Anguillara e Pietro Antonio Michiel," *Annali di botanica* 8, 617–685.
- Dick, W. (1857–1859), "Stomach or Grass Staggers," *Transactions of the Highland and Agricultural Society of Scotland*, 468–478.
- Doyen, A.-M./van den Abeele, B. (eds.) (in press), *Chevaux, chiens, faucons. L'art vétérinaire antique et médiéval à travers les sources écrites, archéologiques et iconographiques* (Actes du colloque, Louvain-la-Neuve, 24–26 mars 2011).

- Ernout, A. (1949), *Les adjectifs latins en -ōsus et en -ulentus*, Paris.
- Ferri, R. (2012), "Vulgar Latin in the Bilingual Glossaries: The Unpublished *Hermeneumata Celtis* and Their Contribution," in: Biville/Lhommé/Vallat (eds.), 753–763.
- Fischer, K.-D. (1980), *Pelagonius. Ars ueterinaria*, Leipzig.
- Fry, S. (1994), *The Hippopotamus*, London.
- Girard, M.-Ch. (1986), *Connaissance et méconnaissance de l'hellébore dans l'Antiquité*, Ph.D. thesis, Laval University, Québec.
- Gitton-Ripoll, V. (in press), "La lune a-t-elle une influence sur la folie des chevaux? Étude du chapitre 29 de Pélagonius, *Ars ueterinaria*," in: Doyen/van den Abeele (eds.).
- Gourevitch, D. (1993), "Proposition pour l'étymologie d'*apiosus*," *Revue de philologie, de littérature et d'histoire anciennes* 67, 257–261.
- (1994–1995), "Programme de l'année 1994–1995: 1. Les préfaces d'ouvrages latins de médecine des femmes et de médecine vétérinaire," *École pratique des hautes études, sciences historiques et philologiques*—Livret 10, 153.
- "Grass Stagers" (1861), *The British Farmer's Magazine*, New Series 41, 237.
- Grazzini, S. (2011), *Scholia in Iuuenalem recentiora. Secundum recensione φ et χ*, 1. Satt. 1–6, Pisa.
- Ihm, M. (1892), *Pelagonii Artis ueterinariae quae extant*, Leipzig.
- Imperio, O. (1998), "Callia," in: Belardinelli/Imperio/Mastromarco/Pellegrino/Totaro, 195–254.
- Kemp, H./Bourke, Ch./Wheatley, W. (2007), "Endophytes of Perennial Ryegrass and Tall Fescue," *Primefact* 535, 1–4.
- Magnani, M. (2008), "Pelagonii *Ars ueterinaria* 29," *Eikasmos* 19, 279–286.
- Marx, F. (1928), *Plautus. Rudens*, Leipzig.
- Mattioli, P.A. (1554), *Commentarii in libros sex Pedacii Dioscoridis Anazarbei de medica materia*, Venice.
- Michiel, P.A. (1940), *I cinque libri di piante*, Venice.
- Nettleship, H. (1889), *Contributions to Latin Lexicography*, Oxford.
- Niedermann, M. (1910), *Proben aus der sogenannten "Mulomedicina Chironis"* (Buch 2 und 3), Heidelberg.
- O'Brien-Moore, A. (1924), *Madness in Ancient Literature*, Weimar.
- Oder, E. (1901), *Claudii Hermeri Mulomedicina Chironis*, Leipzig.
- Önnerfors, A. (1993), "Das medizinische Latein von Celsus bis Cassius Felix," *Aufstieg und Niedergang der römischen Welt* 2.37.1, 227–392; 924–937.
- Ortoleva, V. (1996), *La tradizione manoscritta della "Mulomedicina" di Publio Vegezio Renato*, Acireale.
- (1998), "Un nuovo testimone frammentario di Pelagonio e alcune considerazioni sulla tradizione manoscritta e sul testo dell'*Ars ueterinaria*," *Res publica litterarum* n.s. 1, 13–44.

- Passemaid, B. (2012), *Intoxications du cheval par les séneçons. Étude et prévention des intoxications du cheval suite à l'ingestion de séneçons*, Saarbrücken.
- Paulis, G. (1992), *I nomi popolari delle piante in Sardegna. Etimologia, storia, tradizioni*, Sassari.
- (1993), "Le 'ghiande marine' e l'erba del riso sardonico negli autori greco-romani e nella tradizione dialettale sarda," *Quaderni di semantica* 14.1, 9–50.
- Piccitto, G. (1977), *Vocabolario siciliano*, 1, Catania/Palermo.
- Ruini, C. (1598), *Dell'anotomia [sic] et dell'infermità del cavallo*, Bologna.
- Scaliger, J.C. (1557), *Exotericarum exercitationum liber quintus decimus de subtilitate ad Hieronymum Cardanum*, Paris.
- Stirling, I. (1995), *Lexicon nominum herbarum, arborum fructicumque linguae Latinae*, 1, Budapest.
- Swick, R.A. (1981), *Senecio jacobaea: Toxicity and Effects on Mineral Metabolism in Animals*, Ph.D. Thesis, Oregon State University.
- Trutta, G.B. (1699), *Novello giardino della pratica, e esperienza*, Naples.
- Veggetti, A./Cartoceti, L. (eds.) (2008), *Atti V convegno nazionale di storia della medicina veterinaria* (Grosseto, 22–24 giugno 2007), Brescia.

The Latin and Greek Tradition of the *Corpus Oribasianum*

Serena Buzzzi and Federico Messina

Abstract

The Latin translations of Oribasius are much earlier than the manuscripts of the Greek tradition, as is well known. In his edition of the *Synopsis* (1926) Ioannes Raeder pointed out the importance of the Latin versions for the *constitutio textus* and showed how useful they could be to solve several problems when the manuscript tradition was insufficient. A systematic comparison between the Greek and the Latin *Oribasius* is yet to be done thoroughly, but this type of analysis appears to be very promising already. In this contribution we will examine the relationship between the Latin and the Greek tradition of the *Eclogae* and the *Synopsis* in detail. We will analyse a few significant parts. Through this comparison of the two traditions it will be possible to interpret and, at times, to propose better corrections of the text in Latin or in Greek.

The Latin and Greek Tradition of Oribasius' Corpus

The manuscript tradition of Oribasius in Latin includes the redaction *La*, with ninth–seventeenth-century manuscripts, and the redaction *Aa*, with seventh–ninth-century manuscripts. The Greek tradition, on the other hand, is later and includes twelfth–fifteenth-century manuscripts. For the *Eclogae* there is a *codex unicus* from the tenth century.

Here we provide a brief and schematic description of the tradition:

The Latin tradition *La*, redaction *La*, has been transmitted in the following manuscripts:¹

※ Translated by Michele Lucchesi, subsequently revised by Jon Wilcox. All translations from Greek and Latin are ours unless otherwise noted.

1 For practical reasons, the sigla of the manuscripts have been changed as follows: L (= *La*); A (= *Li*); S (= *St*); E (= *Bas*); D (= *Dr*); F (= *Lond*), cf. Messina (2008: 78 n. 1).

- L (= *La*)** Laon, Bibliothèque municipale 424, ninth century.²
Manuscript in minuscule script from the second quarter of the ninth century with marginal notes (f^o 145^v, 163^r, 186^v) from the eleventh century;³ Molinier⁴ and Mørland⁵ date it back to the tenth century. It comes from Notre-Dame de Laon, but it has been written in northern Italy.
- A (= *Li*)** Leipzig, Universitätsbibliothek, Rep. I 24, ninth century.⁶
Parchment manuscript in minuscule script from the second half of the ninth century with marginal notes of an almost contemporaneous hand, and of another hand from the eleventh century.⁷ Possible provenance is southern France.⁸
- S (= *St*)** Stuttgart, Württembergische Landesbibliothek HB.XI.8, ninth century.⁹
Parchment manuscript, written in Caroline minuscule script from the first half of the ninth century, with glosses, corrections, and both marginal and interlinear observations by slightly later hands. Possible origin is the Romance area.
- B** Vatican City, Vatican Library, Barb. Lat. 160, olim Barb. 767, eleventh century.¹⁰
Parchment manuscript from the eleventh century.¹¹ Probable origin is central Italy.

2 For the complete description of the manuscript cf. Beccaria (1956: 132–133), Wickersheimer (1966: 36–39).

3 Cf. Wickersheimer (1966: 36).

4 Cf. Molinier (1876: 6, XIX).

5 Cf. Mørland (1940: 6).

6 For the complete description of the manuscript, cf. Beccaria (1956: 221–222).

7 Naumann (1838: 30, n^o 97) dated the manuscript to the eleventh century. The same dating is accepted by Molinier and Mørland.

8 Cf. Beccaria (1956: 221).

9 For the description of the manuscript cf. Beccaria (1956: 229–231). See also Buhl-Kurras (1969: 7–9).

10 For the complete description of the manuscript cf. Beccaria (1956: 324–33); Pellegrin/Fohlen/Jeudy/Riou (1975: 189–191); Molinier (1876: 6, XIX–XX) refers to this manuscript as *Ba*: “Bibliothèque Barberino, à Rome, n^o 767, f^o 199”.

11 Mørland (1940: 6) dates it to the twelfth century.

- M** München, Bayerische Staatsbibliothek clm 23535, twelfth century.¹²
Parchment manuscript in minuscule script from the twelfth century.
- H** Copenhagen, Kongelige Bibliotek, Gamle Kgl. Samling 1653 4°, eleventh century.¹³
Parchment manuscript, in Beneventan script from the end of the eleventh century, with interventions by a later hand from the fifteenth century.¹⁴
- C** Cambridge, University Library Gg III 32, fifteenth century.¹⁵
Paper manuscript from the fifteenth century.
- E (= Bas)** Basel, Universitätsbibliothek N.I.3 no. 13 u. 15, ninth century.¹⁶
Volume constituted of various fragments of different format, content, and age; two of them, written in minuscule script, dated to the beginning of the ninth century, belong to the same manuscript, now lost, which contained Oribasius' works.
- U** Vatican City, Vatican Library, Urb. Lat. 293, eighth and eleventh–twelfth centuries.¹⁷
Parchment manuscript formed by two parts: 1) f° 1–94 from the eleventh–twelfth century; 2) f° 95–96 from the first half of the eighth century.¹⁸ Indications are of German provenance.¹⁹
- R** St. Gallen, Stiftsbibliothek 44, seventh–ninth century.²⁰
Parchment manuscript, whose first part (f° 1–184) can be dated to the second half of the eighth century; the second part (f° 185–368) is from the beginning of the ninth century.

12 Cf. Halm-Mayer (1881: 76).

13 For the description of the manuscript cf. Jørgensen (1926: 426–428).

14 Cf. Jørgensen (1926: 426). Mørland (1940: 6) dates the manuscript to the thirteenth–fourteenth century.

15 For the description of the manuscript cf. *A Catalogue* . . . (1858: 3, 82–84).

16 For the complete description of the manuscript cf. Beccaria (1956: 351–352).

17 For the description of the manuscript cf. Pellegrin/Fohlen/Jeudy/Riou (1982: 2, 533–534).

18 On the date cf. Carbonelli (1921: 3–6), where the manuscript is erroneously dated to the fifteenth century, and Riou (1979: 235–37).

19 Cf. Pellegrin/Fohlen/Jeudy/Riou (1982: 2, 533).

20 For the complete description of the manuscript cf. Scherrer (1875: 19–20) and von Euv 2008.

- D** (= *Dr*) Dresden, Sächsische Landesbibliothek 187, twelfth (fourteenth?) century.²¹
Parchment manuscript constituted of 50 folia from the twelfth century.²²
- F** (= *Lond*) London, British Library Royal 12.F.IX; sixteenth–seventeenth century.²³
Paper manuscript from the sixteenth century.

The text of the redaction *Aa* is transmitted in the following manuscripts:²⁴

- P** (= *Aa*) Paris, Bibliothèque Nationale Lat. 10233, olim suppl. lat. 621, seventh century.²⁵
Parchment manuscript in uncial and semi-uncial script, on whose dating and provenance discordant hypotheses have been advanced. Lowe dates the manuscript to the end of the seventh century and suggests a Spanish origin.²⁶ Cavallo tends to believe that the manuscript comes from Ravenna.²⁷
- B** (= *Bern*) Bern, Burgerbibliothek F 219.3, sixth–seventh century.²⁸
Parchment manuscript formed by a collection of fragments of various age, form, writing, and provenance.

21 For the description of the manuscript cf. Schnorr von Carolsfeld (1882: 336). The manuscript is in very bad condition because of damage caused by the bombing of Dresden in February 1945.

22 Cf. Schnorr von Carolsfeld (1882: 336). Falkenstein (1839: 264) dates it to the fourteenth century.

23 For the description of the manuscript cf. Warner/Gilson (1921: 63–64).

24 The sigla of the manuscripts have been changed as follows: **P** (= *Aa*); **B** (= *Bern*); **N** (= *As*); **Q** (= *Ab*), cf. Messina (2008: 101 n. 43).

25 For the complete description of the manuscript cf. Lowe (1950: V, 22, 58, n° 592) and Wickersheimer (1966: 93–98).

26 Cf. Lowe (1950: V, 22, 58) and Imbault Huart/Dubief/Merlette (1983: 48), where the authors defend the hypothesis of a Spanish origin of the manuscript and its dating to the end of the seventh century. On the dating of the manuscript cf. also Mørland (1932: 11), where the fifth–sixth century is suggested, but Mørland himself (1940: 3) moves the dating to the sixth–seventh century without giving, however, any explanation for any of the two hypotheses.

27 Cf. Cavallo (1983: 38). The hypothesis of the manuscript's origin from Ravenna is accepted by Vázquez Buján (1994: 228 and n. 18) too.

28 For the description of the manuscript see Hagen (1875: 271–272).

- N (= As)** Paris, Bibliothèque Nationale nouv. acq. lat. 1619, olim Asburnham Place 10, eighth century.²⁹
Parchment manuscript in semi-uncial script; probably originated in northern France in the eighth century.³⁰
- Q (= Ab)** Paris, Bibliothèque Nationale Lat. 9332, olim suppl. lat. 626, ninth century.³¹
Parchment manuscript in pre-Caroline minuscule script from the beginning of the ninth century,³² with insular elements.³³ Molinier suggests an Italian origin,³⁴ but in all probability the manuscript is from the region of Fleury.³⁵ In the sixteenth century it belonged to the library of the cathedral of Chartres.³⁶
- G** St. Gallen, Stiftsbibliothek 761, ninth century.³⁷
Parchment manuscript in insular minuscule script written by a single hand in the ninth century.

The Greek tradition of the *Synopsis* is mainly represented by the following three manuscripts, used by Raeder for his edition:

- F** = Plut. gr. 74.15, Florence, Biblioteca Medicea Laurenziana, dated to the fourteenth century by Angelo Maria Bandini, librarian of the eighteenth century; Bianconi, conversely, hypothesises an anterior dating by the middle of the twelfth century.³⁸

29 For the complete description of the manuscript cf. Lowe (1950: V, 47, 48, 63 n° 688); Wickersheimer (1966: 142–145).

30 Lowe (1950: V, 47, 48, 63) dates it to the eighth century, while Mørland (1940: 3) prefers the seventh century.

31 For the complete description of the manuscript see Beccaria (1956: 157–158) and Wickerheimer (1966: 89–93).

32 On the dating of the manuscript cf. Lowe (1931: 103); Wickersheimer (1966: 89); cf. also Cavallo (1984: 633), where the manuscript is dated to the end of the eighth century.

33 Cf. Beccaria (1956: 157).

34 Cf. Molinier (1876: 6, XVIII).

35 Cf. MacKinney (1937: 113, 197 n. 218).

36 Cf. Delisle (1874: 2, 11).

37 For the complete description of the manuscript see Beccaria (1956: 386–387); Scherrer (1875: 251).

38 Cf. Bianconi (2010: 75–96; 707–718).

Bombycine manuscript written by two hands. The first hand can be identified up to f° 113^v; it has a curvilinear script, which inclines towards the right with a rather stylized aspect.³⁹ Eight paper *folia*, inserted between f° 2 and 9, belong to another later hand of a Renaissance copyist. The margins are often damaged, which affects the reading; its *codex descriptus*, which is less important for the *constitutio textus*, is the Vindobon. Med. gr. 42 of the sixteenth century.

A = Plut. gr. 74, 17, Florence, Biblioteca Medicea Laurenziana, from the period between the twelfth and the thirteenth century, coming from the region of Otranto according to Formentin and Arnesano.⁴⁰ This is a parchment *codex rescriptus*, a medical miscellany containing the *Synopsis* (f° 1–81) and Books 1–4 of the *Ad Eunapium* (f° 81^v–101), with great lacunae in the first two;⁴¹ parts of Books 1 and 7 of the *Medical compendium* of Paul of Aegina (f° 105^v–111); parts of Book 5 of the *De materia medica* of Dioscorides (f° 112–132); parts of Books 9–11 of the *De simplicium medicamentorum temperamentis ac facultatibus* (f° 133–150^v).⁴²

P = Paris, Bibliothèque Nationale gr. 2188, fifteenth century, Inv. 1589/1597, Phil. gr. 25, Reg. 8 (I), Phil. 80 according to the catalogue of the Biblioteca Riddolfiana.⁴³

Paper manuscript containing the entire *Synopsis* (f° 1–89) and the *Commentarium in Aristotelis categorias* of Simplicius (f° 89–243). In particular, this last part was written by Nikolaos Mellechrenos.⁴⁴ On the other hand, f° 1–85^v, which originally constituted the last part of the manuscript, was copied by Konstantinos Tribolos,⁴⁵ a Spartan copyist of the Greek renaissance.⁴⁶ Other less important manuscripts descend from

39 Bianconi (2010: 92–93) describes the handwriting pointing out the attempt to control curvilinear elements, abbreviations, ligatures, modular imbalances with circular centres, which are often enlarged and marked by oblique strokes or, sometimes, by sinuous strokes.

40 Cf. Formentin (1978: 78; 109) and Arnesano (2008a: II n. 51), who define it as a “Salentine palimpsest”; on the Italian-Greek origin, cf. also Cavallo (1980: 192); Wilson (1987: 55).

41 According to Formentin (1978: 87) this represents the most ancient and reliable reading of the work.

42 Cf. Ceresa-Lucà (2008: 191–229); Pérez Martín (2008: 279–294); Aletta (2008: 771–778); Arnesano (2008b: 191–200); Boudon-Millot (2007: CLXXXII); Petit (2010: 143–165).

43 For details about the manuscript cf. Muratore (2009: t. 1: 191–192 n. 22; 251; 280–281 n. 33; 284; 301; t. 2: 48–49; 405; 447; 502; 531; 564; 686; 781); Omont (1888: 212).

44 Gamillscheg/Harlfinger/Hunger (1989: t. 2 A 160–161 n. 433).

45 Gamillscheg/Harlfinger/Hunger (1989: t. 2 B 118 n. 318).

46 Identifiable with Michael of Sparta; in this regard, cf. Bernardinello (1986: 80 n. 372).

this: Oxon. d'Orville 3 from the fifteenth century,⁴⁷ Ambr. D 13 sup., Vat. Barb. gr. 118, Scor. Y 1.9, Vat. gr. 287, all paper manuscripts from the sixteenth century.

The *Eclogae* are transmitted by a *codex unicus*:

- X = Paris. Suppl. gr. 446, Paris, Bibliothèque Nationale, tenth century. Parchment manuscript, dated to the beginning of the tenth century, with a calligraphic script, which has an accurate *ductus* and a uniform, regular, and constant modulation of the letters, which are often tapered.⁴⁸ According to Cavallo, Garzya and Wilson, its geographic origin could have been in an Italian-Greek area;⁴⁹ Concasty, conversely, suggests Bithynia.⁵⁰ A provenance from Constantinople, where the manuscript was bought, cannot be ruled out.⁵¹ The gold leaves of the surface, which may remind us of southern Italy, make it, at times, hard to decipher the letters of the headings. The manuscript represents the most ancient witness of the *Prognosticon* by Hippocrates, of the *Ad Glauconem* by Galen, and of the *Medical compendium* by Paul of Aegina. One can notice the presence of several hands, which may make us think about a circle of copyists.

Here we present select passages that show how a comparative study of the Greek and Latin traditions can contribute to the study of Oribasius and how urgent a broader philological analysis is in this regard.

1 **Sor. Gyn. 1.9 (= 28.65–70 Burguière/Gourevitch/Malinas; 1.32 Ilberg)**

P = Paris. gr. 2153, fifteenth century

ἡμεῖς δὲ τὴν διηγεσθῆ παρθενίαν ὑγιεινὴν εἶναι φαμεν, ὅτι βλαβερά κατὰ γένος ἢ συνουσία, καθάπερ ἐν τῷ Ὑγιεινῷ διὰ πλειόνων ἀποδέδεικται. βλέπομεν δὲ καὶ τῶν ἀλόγων ζώων ἐν τοῖς θηλυκοῖς ὄντα ἐρρωμενέστερα τὰ κωλυόμενα τῇ συνουσίᾳ χρῆσθαι.

47 Cf. Touwaide (2009: 453–595).

48 The examination of the handwriting seems to confirm a later chronology around the eleventh–twelfth century; cf. Buzzi (2009: 4–8). For the description of the manuscript, cf. Omont (1883; reprinted 2000: 262); Noret (1979: 311); Irigoien (1962: 293 n. 42).

49 Cf. Cavallo (1980: 161); Garzya (1989: 190); Wilson (1987: 52–53).

50 Cf. Concasty (1953: 23).

51 It is well known that Augerius de Busbecke bought this manuscript in Constantinople (as in the note at the bottom of f^o 1^r).

We affirm that continuous virginity is healthy, because sexual intercourse is harmful in itself, as we have demonstrated in detail in our book on Healthy Living. We also observe that the more vigorous among female animals are those which are prevented from having intercourse (trans. by Burguière/Gourevitch/Malinas; slightly modified).

Oribas. *Syn.* 5.1 = 47.3–6 Molinier, text established by F. Messina

Manuscripts of the redaction *Aa*

N (= As): Paris, Bibliothèque Nationale nouv. acq. lat. 1619, eighth century

Q (= Ab): Paris, Bibliothèque Nationale Lat. 9332, ninth century

G : St. Gallen, Stiftsbibliothek 761, ninth century

α : *consensus* NQG

Manuscripts of the redaction *La*

L (= La): Laon, Bibliothèque municipale 424, ninth century

S (= St): Stuttgart, Württembergische Landesbibliothek HB. XI. 8, ninth century

β : *consensus* LS

Virginitatem uero salutarem **necessario** comprobamus, siquidem et noxius sit natura concubitus. Vidimus etiam cetera animalia prohibita ueneriis esse fortiora et magis feminas.

uero αL: uirum S || necessario α: -um β || natura *scripsi* (cf. *Cael. Aurel. Gyn. 1.41 Drabkin/Drabkin*): -ae αS: -am L || concubitus QGβ: -pitus N || uidimus NQβ: -emus G *fortasse recte* || cetera animalia αL: -am -am S || prohibita αL: prohibuit ad S || ueneriis β: uentri NG uentris Q || esse α: se β

We necessarily approve virginity as healthy because sexual intercourse is harmful by nature. We have also observed that the other animals which have not been allowed to have intercourse are stronger, especially the female.

New York Collection 1.41 = 12.294–296 Drabkin-Drabkin

C = New York, Academy of Medicine, *SAFE*, thirteenth century

Nos uirgini uirginitatem salutarem necessario comprobamus, siquidem noxius est natura concubitus. uidemus enim animalia prohibita uenere fortiora, et magis feminas.

animalia *edd. scripserunt*: naturalia C

We necessarily approve virginity as healthy for a virgin because sexual intercourse is harmful by nature. For we observe that the animals which have not been allowed to have intercourse are stronger, especially the female.

The version of Caelius Aurelianus at the beginning of book 5 of the *Synopsis* of Oribasius appears to be almost identical in La and Aa. The passage is transmitted by the manuscripts LS in the textual tradition of La and by the manuscripts NQG in Aa.

The manuscript tradition of Oribasius in Latin is considerably older than the Greek tradition. The *codex unicus* P, *Parisinus Graecus* 2153, which contains the text of the *Gynaecia* of Soranus, is dated to the fifteenth century, while the older manuscripts treating the relevant texts in the redaction Aa of the Latin tradition of Oribasius' *Synopsis ad Eustathium* can be dated to the eighth–ninth century. In addition, manuscript C, New York, Academy of Medicine, *SAFE*, which transmits the text of the New York Collection, is a parchment manuscript from the mid-thirteenth century. These witnesses, therefore, are useful in reconstructing a version of the Greek text older than the traditional one.

The part of the text analysed does not correspond to any passage in Oribasius' Greek original. There is an interpolation from a passage of the *Gynaecia* of Caelius Aurelianus that is common to the two Latin versions of the *Synopsis*, as it can be read in the so-called New York Collection 1.41.⁵² The original Greek text from which Caelius Aurelianus translates is Sor. *Gyn.* 1.9 (1.32 Ilberg).

From the comparison between the text in the two Latin versions of the *Synopsis* of Oribasius and the text in the New York Collection the relevant element which emerges is the consistent use of the adverb *necessario* ("necessarily"), which cannot be found in the Greek original, where we can read διηνεκῇ ("continuous") referring to the substantive παρθενίαν ("virginity").

⁵² Cf. Messina (2007: 95–138).

“Virginitatem . . . necessario” (“virginity . . . necessarily”) contrasts with the phrase “τὴν διηνεκὴ παρθενίαν” (“continuous virginity”).

One should note that the context of the Greek original focuses semantically on the concept of continuous virginity and its salutary effects on women, men, and even animals. Chapter 9 is introduced by the interrogative Εἰ ὑγιεινὴ ἐστὶν ἡ διηνεκὴς παρθενία (“whether continuous virginity is healthy”) and begins with the sentence Τὴν διηνεκὴ παρθενίαν οἱ μὲν ὑγιεινὴν ἔλεξαν (“some people affirmed that continuous virginity is healthy”), where the adjective διηνεκὴ confirms the idea of continuity in voluntarily preserved virginity.

The Latin translations do not attest the adjective διηνεκὴ (“continuous”), but change the Greek original to the adverb *necessario* (“necessarily”), which is a significantly different semantic field. The idea of observing virginity for a certain period of time loses its centrality. In the translation only the idea of good health derived from virginity survives without modification. The use of *necessario* (“necessarily”) seems to exclusively stress the categorical character of the observation, according to which virginity is “necessarily” a healthy physical state. Such a choice, moreover, appears to be fundamental for Caelius Aurelianus’ method of translation as he systematically rewrites Soranus’ text.⁵³

For this reason, one cannot rule out the possibility that Caelius Aurelianus was influenced by Christian philosophy in his choice of *necessario*.⁵⁴ In addition to the semantic implications of the discrepancies between the Greek text and its Latin translation, in this specific case there is also a textual difficulty. The use of the term *necessario* in the New York Collection is unanimously confirmed by the manuscript tradition of Oribasius in Latin. The agreement about *necessario* between the two manuscript traditions (Oribasius in Latin and the New York Collection), which are independent of each other, may lead us to think that the presence of *necessario* is due to a Greek text different from the one that we have now. In the book available to him, instead of διηνεκὴ (“continuous”) Caelius Aurelianus could have read δι’ ἀνάγκης (“necessarily”) or some other expression used as an adverbial locution.

Here we present the reconstruction of a phase of the Greek tradition:

Sor. Gyn. 1.9 = 28.65–70 Burguière/Gourevitch/Malinas = 1.32 Ilberg

ἡμεῖς δὲ τὴν διηνεκὴ παρθενίαν ὑγιεινὴν εἶναι φαμεν, ὅτι βλαβερά κατὰ γένος ἡ συνουσία, καθάπερ ἐν τῷ Ὑγιεινῷ διὰ πλειόνων ἀποδεδεικται. βλέπομεν δὲ καὶ τῶν ἀλόγων ζώων ἐν τοῖς θηλυκοῖς ὄντα ἐρρωμενέστερα τὰ κωλυόμενα τῇ συνουσίᾳ χρῆσθαι.

53 Cf. Urso (2000: 297–315).

54 Cf. Mazzini (2007: 19–21).

διηνεκῇ P: necessario (*fortasse ex δι' ἀνάγκης*) Oribas. Syn. (lat.) p. 47, 3
Mol. et Cael. Aurel. 1.41 Drabkin/Drabkin

One can assume, therefore, that there was a variant in the text used by Caelius Aurelianus. Such a variant could possibly have been caused by an erroneous reading of the original διηνεκῇ as δι' ἀνάγκης. Since the wording is sufficiently similar as regards sound and appearance, one can hypothesise both an incorrect subdivision of the words and a graphic oscillation of η/α and ε/α in the vocalic sequence of the word διηνεκῇ (“continuous”). Alternatively, one could also suppose the presence of the form διανεκῇ (“continuous”), which is attested in Doric-Attic.

Despite the fact that the whole context of the Greek original justifies the use of the adjective διηνεκῆς (“continuous”), which is probably the genuine reading, in this specific case the Latin texts witness an ancient variant lost in the manuscript tradition of the Greek text. In late antiquity the Greek manuscript tradition could evidently have been read in a different form from that in which it appears now. In a future edition of Soranus’ text the quotation of the variant δι' ἀνάγκης (“necessarily”), which can be reconstructed on the basis of the Latin text, should not be neglected nor left out of the apparatus.

We present now a passage about intestinal obstruction from *Synopsis* 9.16. After the first part, in which the pathology is described, therapy follows.

2 Oribas. Syn. 9.16.3 (= 286.12–15 Raeder = 493 Bs-Dg)

P = Paris. gr. 2188, fifteenth century

θαυμαστῶς δὲ ποιεῖ πρὸς αὐτούς, κὰν ἐμῶσι κόπρον, εἰς ἔλαιον καὶ ὕδωρ ἀνηθὼν
 ἐψηθὲν καὶ ποθέν· μετὰ δὲ τὸ πιεῖν ἄρτον εἰς θερμὸν ὕδωρ ἐμβαλὼν εὐθὺς δὸς
 φαγεῖν θερμούς τοὺς ψωμούς· σωθήσεται γάρ, κὰν ἤδη πνίγηται.

πιεῖν Raeder: ποιεῖν P || δὸς φαγεῖν Raeder: προσφαγῇ P; προσφαγεῖν *fortasse recte* || πνίγηται Raeder: πνίγεται P

Anethum, boiled in oil and water and administered to drink, extraordinarily affects them, even when they vomit excrements. After making him drink it, having put some bread into hot water, give immediately the pieces of bread to eat while still hot. For he will be saved, even if he already suffocates.

Paul. Aeg. 3.44 (= 240.18–20 Heiberg)

C = Paris. Gr. 2207, a. 1299

F = Paris. Gr. 2292, fourteenth century

G = Cod. Monasterii S. Johannis Patmi 208, eleventh century

L = Bibliotheca S. Synodi, Codd. 125, 379, 387, Fragmenta Mosquensia, ninth century

μετὰ δὲ τὸ πιεῖν ἄρτον εἰς θερμὸν ὕδωρ ἐμβάλων εὐθὺς δὸς φαγεῖν θερμούς τοὺς ψωμούς·

τὸ] τοῦ CFG, corr. C || πιεῖν] πονῆν L || ὕδωρ] ζέον L

after making him drink it, having put some bread into hot water, give immediately the pieces of bread to eat while still hot.

The direct tradition is represented here by P, Paris Greek manuscript 2188, from the fifteenth century.

Here we record as witness of the indirect tradition the passage from Paul of Aegina's *De re medica* 3.44, p. 240, 17–20 Heiberg (1921), which has a perfectly identical version of the text.⁵⁵ Nevertheless, the variant of the most ancient witness L (ninth century) has to be recalled: ζέον (“boiling”) instead of ὕδωρ (“water”).⁵⁶

In the apparatus of the *Synopsis* we can note the emendation proposed by Raeder, which is confirmed by Paul of Aegina. In fact, one can simply keep *προσφαγή* (*uox nihili* in that context), which is transmitted by the manuscript, in the form of *προσφαγεῖν* (“give to eat”) as an imperative infinitive, frequently used by Oribasius.

Together with this last text we examined also the Greek passage of *Ecl.* 59.4 p. 224, 30–32 Raeder.

55 Paul explicitly refers to Oribasius, since in the proem he states that he wishes to write a treatise of intermediate level between his models. For him, the *Collectiones* in seventy books were excessively long and expensive, and the *Synopsis* was considered too reductive. The proem can be read in Heiberg (1921: 3–5); on the relationship with Paul of Aegina, cf. Buzzi (2008b: 99–103).

56 The parallel passage of *Eup.* 4.90 cannot be of any help because of a lacuna at this point.

Ps. Oribas. *Ecl.* 59.4 (= 224, 30–32 Raeder = 575 Bs-Dg = text established by S. Buzzi)

X = Paris. Suppl. Gr. 446, tenth century

μετὰ δὲ τὸ πιεῖν ἄρτον εἰς θερμὸν ζέον ἐμβαλὼν εὐθέως δίδου φαγεῖν τοὺς ψωμούς· σωθήσεται γάρ, καὶ ἤδη πνίγεται.

Oribas. *Syn.* 9.16.13–15 Rd.; Aët. 9.28.27–29 Z; Paul. Aeg. 3.44 (p. 240.17–20 H.), cf. *Eup.* 4.90.29–30 Rd.; cf. Oribas. *Syn.* 9.36 Mol.

After making him drink, having put some bread in boiling water, immediately give him the pieces of bread to eat while they are still hot. He will be saved, even if he is already suffocating.

Aët. 9.28 (= 334.27–29 Zervòs)

B^a = Paris. Gr. 2237, fourteenth century

G^a = Paris. Gr. 2194, fifteenth century

X = Paris. Gr. 2199, sixteenth century

μετὰ δὲ τὸ πιεῖν, ἄρτον εἰς ὕδωρ ζέον ἐμβαλὼν, εὐθὺς δίδου φαγεῖν θερμούς τοὺς ψωμούς· σωθήσεται γὰρ καὶ ἤδη πνίγεται.

After making him drink, having put some bread into boiling water, immediately give him the pieces of bread to eat while they are still hot. He will be saved, even if he is already suffocating.

The direct tradition is represented in this case by the parchment *codex unicus* Paris. Suppl. Gr. 446 of the tenth century. Once again, as an indirect tradition we record Aetius of Amida 9.28.27–29 when it presents some significant variant useful for the discussion.⁵⁷ Let us compare the Greek tradition with the Latin text of Oribas. *Syn.* 9.36. Since they are partially different, we present both the texts according to Aa and La.

57 The relationship between Oribasius and Aetius shows strong conceptual and structural correspondences; cf. Buzzi (2008a: 119–127).

Oribas. *Syn.* 9.36 (= 304.6–8 Mol. Aa = text established by
F. Messina)

P : Paris, Bibliothèque Nationale Lat. 10233, seventh century
N (= As): Paris, Bibliothèque Nationale nouv. acq. lat. 1619, eighth century
Q (= Ab): Paris, Bibliothèque Nationale Lat. 9332, ninth century
α : *consensus* PNQ

Postquam biberit, **panem calidum in bullientem** mittes et mox dabis
manducare calidas suppas, liberatur utique etiam si suffocetur.

postquam PN: postea Q || bullientem N: bullentem P bolientem Q || mittes
scripsi: -is α || suppas PN: subpas Q || etiam P: etiam et NQ || suffocetur P:
suffocitur N suffycitur Q

After he will have drunk, put some hot bread into boiling water,
and immediately give the hot soup to eat; he will be cured, even if he
suffocates.

Oribas. *Syn.* 9.36 (= 304.6–8 Mol. La = text established by
F. Messina)

L (= La): Laon, Bibliothèque municipale 424, ninth century
S (= St): Stuttgart, Württembergische Landesbibliothek HB. XI. 8, ninth
century
β : *consensus* LS

et postea biberit, **panem calidum in feruentem aquam** mittes; mox
dabis ad edendum calidos psomus, id est suppas, liberatur utique iam si
suffocetur.

postea L: postea ubi S *fortasse recte* || in feruentem aquam mittes L: in
feruentem mittis aquas S || edendum L: ae- S || calidos *scripsi*: -us β || pso-
mus L: *om.* S || suppas *scripsi cf.* Aa: sundas L sondas S || liberatur S: -ntur
L || suffocetur *scripsi cf.* Aa: sufescitur L sufficiatur S

after he will have drunk, you shall put some hot bread into boiling water
and you will immediately give the hot pieces of bread, that is, the hot
soup to eat, he is freed, even if he were to suffocate.

The redaction Aa has the correction of the verb *mittis* (“put”) to *mittes* (“you shall put”), confirmed by the redaction La. La, on the other hand, has the correction *suppas* (“bread soup”), confirmed by Aa.

A brief note on the two Latin readings: they have numerous and important features in common. In this passage, they both use the form *liberatur* (“he is freed”) to translate the verb σωθήσεται (“he will be saved”), which can hardly be explained by chance. The transliteration of the word ψωμούς (“pieces of bread”), which is rendered as *psomus* in Latin and is followed by the explicative note *id est suppas* (“that is soup”), demonstrates the greater closeness of *La* to the Greek. We emend the adjective to the plural so that it agrees with the plural *psomus* (“pieces of bread”). Perhaps *calidus* (“hot”) can be explained by its ending in *-us* and the consequent homeoteleuton, while *suppa* (“soup”) has a western German origin and is attested only in this passage.⁵⁸

Let us focus on the following phrases of text, which show mutual correspondences:

Syn. εἰς θερμὸν ὕδωρ ἐμβαλὼν (“after putting it into hot water”)

Ecl. εἰς θερμὸν ζέον ἐμβαλὼν (“after putting it into boiling water”)

Aa : panem calidum in bullientem mittes (“you shall put hot bread into boiling water”)

La : panem calidum in feruentem aquam mittes (“you shall put hot bread into boiling water”)

These are the differences that can be identified:

θερμὸν (ὕδωρ) (“hot water”)—(ζέον) (“boiling”) / *calidum* (*panem*) (“hot bread”)

ζέον (“boiling”) / *bullientem* (“boiling”) (Aa)—*feruentem* (“boiling”) (La)

θερμὸν (“hot”) is used in the *Synopsis* with reference to ὕδωρ (“water”), and in *Eclogae*, where it has a substantival function with reference to the participle ζέον (“boiling”). In Aa and La the adjective *calidum*, which qualifies *panem* (“bread”) in both redactions, corresponds to θερμὸν (“hot”).

⁵⁸ Cf. the entry *suppa* in Ernout/Meillet.

Both *bullientem* (“boiling”) in Aa and *feruentem* (“boiling”) in La correspond to ζέον (“boiling”), which can be read only in *Eclogae*, in Aetius and *Fragmenta Mosquensia* of Paul in L.

Considering that soups are made of stale bread rather than hot bread, we can argue that the Latin tradition presents an erroneous interpretation probably due to the translators’ misinterpretation of the text. After several hypotheses we have concluded that the correct form in the *Eclogae* is θερμὸν ζέον (“hot boiling water”), which is *lectio difficilior*. For the substantival θερμὸν (“hot water”) is attested since Aristophanes (cf. *Nubes* 1044), and *calidam feruentem* (“hot boiling water”) without *aquam* (“water”) can be read, for instance, in Apicius *De re coquinaria* (*On cooking*) 1.18: *merge in calidam feruentem* (“immerse in hot boiling water”).

The gloss ὕδωρ (“water”) could have entered into the text of the *Synopsis*, Aetius, and Paul to explain θερμὸν (“hot water”), which is present in these authors in the locution θερμούς τοὺς ψωμούς (“pieces of hot bread”) that follows. This can be considered a redundant note, inasmuch as the pieces of bread are given to eat εὐθέως (“immediately”) or εὐθὺς (“immediately”) and would have been hot as expected. However, this could have also represented a stylistic choice to reinforce the concept.

For the translators, θερμὸν (“hot water”) or even *calidum* (“hot water”) might have created difficulties with consequent attempts to adjust and change the *ordo uerborum* from ἄρτον εἰς θερμὸν (“bread into hot water”) to εἰς ἄρτον θερμὸν (“into hot bread”). This can explain the variant with the adjective *calidum* (“hot”) in agreement with *panem* (“bread”); *calidum* is then repeated with reference to *suppas* (“soup”) and *psomus* (“pieces of bread”), creating a redundancy.

Having considered these interpretative hypotheses, here are the textual suggestions:

We think that the reading of *Eclogae* 59.4 is correct:

μετὰ δὲ τὸ πιεῖν ἄρτον εἰς θερμὸν ζέον ἐμβάλων εὐθέως δίδου φαγεῖν τοὺς
ψωμούς· σωθήσεται γάρ, κἂν ἤδη πνίγῃται.

After drinking put some bread into boiling water, and give him the pieces of bread to eat immediately while he will be saved, even if he already suffocates.

Textual suggestions:

– *Syn.* 9.16.13–15

μετὰ δὲ τὸ πιεῖν ἄρτον εἰς θερμὸν [ὕδωρ] < ζέον > ἐμβάλων εὐθὺς δὸς φαγεῖν
θερμούς τοὺς ψωμούς· σωθήσεται γάρ, κἂν ἤδη πνίγῃται.

πιεῖν Raeder: ποιεῖν P || ὕδωρ] *fortasse* ζέον ex *Ecl.* 59.4 || δὸς φαγεῖν Raeder: προσφαγῇ P; προσφαγεῖν *fortasse recte* || πνίγεται Raeder: πνίγεται P

after making him drink, having put some bread into boiling water, give immediately the pieces of bread to eat while still hot. He will be saved, even if already suffocates.

– Paul. Aeg. 3.44 (p. 240.17–20 H.)

μετὰ δὲ τὸ πιεῖν ἄρτον εἰς θερμὸν ζέον ἐμβαλὼν εὐθὺς δὸς φαγεῖν θερμοὺς τοὺς ψωμούς· σωθήσεται γάρ, καὶ ἤδη πνίγεται.

τὸ] τοῦ CFG, corr. C || πιεῖν] πονῇν L || ζέον L: ὕδωρ CFG

after making him drink, having put some bread into boiling water, give immediately the pieces of bread to eat while still hot. He will be saved, even if already suffocates.

– Redaction Aa

Postquam biberit, panem calidum in bullientem mittes et mox dabis manducare calidas suppas, liberatur utique etiam si suffocetur.

postquam PN: postea Q || bullientem N: bullentem P bolientem Q || calidum in] *fortasse* in calidam (cf. εἰς θερμὸν *Ecl.* 59.4; *Syn.* 9.16.13–15; Paul. Aeg. 3.44.18–20; Aët. 9.28.27–29) || mittes *scripsi*: -is α || suppas PN: subpas Q || etiam P: etiam et NQ || suffocetur P: suffocitur N suffycitur Q

after he will have drunk, put some hot bread into boiling water and immediately give the hot soup to eat, he is freed even if he suffocates.

– Redaction La

et postea biberit, panem calidum in feruentem aquam mittes; mox dabis ad edendum calidos psomus, id est suppas, liberatur utique iam si suffocetur.

postea L: postea ubi S *fortasse recte* || in feruentem aquam mittes L: in feruentem mittis aquas S || calidum in] *fortasse* in calidam (cf. εἰς θερμὸν *Ecl.* 59.4; *Syn.* 9.16.13–15; Paul. Aeg. 3.44.18–20; Aët. 9.28.27–29) || edendum L: ae- S || calidos *scripsi*: -us β || psomus L: om. S || suppas *scripsi* cf. Aa: sundas L sondas S || liberatur S: -ntur L || suffocetur *scripsi* cf. Aa: sufescitur L sufficiatur S

after he will have drunk, put some hot bread into boiling water and immediately give the pieces of hot bread, that is, the hot soup to eat, he is freed even if he suffocates.

With the *Eclogae* as a starting point, one should expunge the gloss ὕδωρ (“water”), keeping the *lectio* of the juxtaposition “hot boiling water” in the version of the *Synopsis*.

In Paul too one should restore the more ancient reading of L. For what concerns the text of the translations, taking into account what has already been said in the apparatus, one is required to signal a possible *uariatio* in the word order, so that *calidam* (“hot”) is joined to *feruentem* (“boiling”) or *bullientem* (“boiling”).

Further confirmation comes from Rasarius’ translation of 1554:⁵⁹

Mirum in modum iuuantur qui hoc morbo tenentur, etiam si iam stercus uomant, si anethum in oleo et aqua decoquant, et bibant; **deinde frusta panis ex aqua feruenti** statim, **dum incalescit**, comedant, seruabuntur enim, etsi iam suffocentur.

Those who suffer from this disease, even if they vomit excrements, receive a great help if they boil anethum in oil and water, and if they drink it; then, they should immediately eat the pieces of bread taken out of the boiling water, as long as the water is still hot; for they will be saved even if they already suffocate.

The last case to discuss is Oribas. *Syn.* 5 add. (47.19–21 ed. Molinier), which is, like the last one, an insertion from an external source, the *Gynaecia* of Caelius Aurelianus.

3 Sor. *Gyn.* 1.11 (= 31.17–19 Burguière/Gourevitch/Malinas = 1.34 Ilberg)

P = Paris. Gr. 2153, fifteenth century

καὶ μήτε κάθυγρον τὴν μήτραν ἐχούσας μήτ' αὐχμηράν μηδ' ἄγαν εὖπορον ἢ πολὺ ἐσφριγμένην.

πολύ P: πάλιν Ilberg *ex emendatione* Ermerinsii (1869)

59 Cf. Rasarius (1554: 480).

(it is convenient that women) have the uterus neither too wet nor too dry, neither too open nor excessively close (trans. by Burguière/Gourevitch/Malinas slightly modified).

Oribas. *Syn.* 5 add. (= 47.19–21 ed. Molinier, Text Established by F. Messina)

Manuscripts of the redaction *Aa*

N (= As): Paris, Bibliothèque Nationale nouv. acq. lat. 1619, eighth century
 Q (= Ab): Paris, Bibliothèque Nationale Lat. 9332, ninth century
 G : St. Gallen, Stiftsbibliothek 761, ninth century
 α : *consensus* NQG

Manuscripts of the redaction *La*

L (= La): Laon, Bibliothèque municipale 424, ninth century
 S (= St): Stuttgart, Württembergische Landesbibliothek HB. XI. 8, ninth century
 β : *consensus* LS

Neque humorosam conuenit esse matricem neque siccam neque plurimum feruidam uel calidam aut e contrario frigidam

neque β: et neque α || humorosam QGβ: -a N || conuenit esse β: continetur N conteneretur Q contemnitur G || neque siccam αS: *om.* L || plurimum αL: -am S || feruidam β: -a α || calidam QGL: -a NS || e αL: ex S || *post* frigidam α: seruatur *add.* β

The uterus should be neither wet nor dry nor exceedingly ardent or hot, nor, conversely, cold.

New York Collection 1.44 (= 13.327–329 ed. Drabkin/Drabkin)

Hinc denique conuenit humorosam esse matricem, neque siccam neque plurimum feruidam aut e contrario frigidam.

For this reason, it is appropriate that the uterus is wet, neither dry nor too hot or, conversely, cold.

In this case too, the insertion is common to the two redactions of Oribasius in Latin and appears within the chapter *De conceptu*, where women's ideal physical conditions for conception are described. The Greek reference text is Sor. *Gyn.* 1.11 (31.17–19 ed. Burguière/Gourevitch/Malinas = 1.34 Ilberg). The passage in question is useful to further explore the relationship between the Greek text and its Latin representations. In this case too, one can notice the evident difference between the Greek text and the translation in the two redactions of Oribasius in Latin and the correspondent passage in the New York Collection.

The passages in Latin are fundamentally identical. The only difference is represented by the presence of the specification *uel calidam* (“or hot”) and of the adjective *feruidam* (“ardent”) with reference to *matricem* (“uterus”). The accumulation of adjectives and the consequent semantic amplification are two typical features of Caelius Aurelianus' method of translation, which aims to specify Soranus' Greek text, since the latter appears to be unadorned and basic.⁶⁰

What marks the difference from the Greek original is the use of the phrase *feruidam uel calidam* (“ardent or hot”), reduced to the simple *calidam* (“hot”) in the New York Collection as translation of the correspondent εὔπορον (“open”) in Greek. Another difference consists in writing *frigidam* (“cold”) instead of the original ἐσφριγμένην (“close”).

Soranus describes the ideal characteristics of a woman's uterus to guarantee the success of conception as being within the dichotomy between *status laxus* (εὔπορον) and *status strictus* (ἐσφριγμένην). The correspondent Latin texts seem to employ the jargon typical of humoral medicine derived from Hippocrates. The opposition between “state of relaxation” and “state of constriction” is replaced by the antithetic coupling, hot/cold, so that the ideal conditions for successful conception are realised in the intermediate state between excessive heat (*plurimum feruidam uel calidam*, “very ardent or hot”) and excessive cold (*frigidam*, “cold”).

As in the previous case, the difference from the Greek text is not necessarily explained by the autonomous initiative of the translator; rather, it is probably due to a different reading of the original, in which graphically similar terms can easily have caused a change with very significant semantic consequences. The adjective εὔπορον (“open”) might have been confused with ἔμπυρον (“hot”) because of the graphic similarity between the ligatures of εὐ and ἐμ. Consequently, after the emendation into ἔμπυρον (“hot”) the participle ἐσφριγμένην (“closed”) is corrected too, since it must have been interpreted as

60 Cf. Messina (2010: 173–188).

ἐψυγμένην (“cold”), creating a polar opposition. When he prepared his translation, Caelius Aurelianus read Soranus’ text already with these alterations, so that he rendered ἔμπυρον (“hot”) as *feruidam* (“ardent”), adding *uel calidam* (“or hot”), and ἐψυγμένην (“cold”) as *frigidam* (“cold”).

The last aspect worthy of attention is the use of the adverbial locution *e contrario* (“on the contrary, conversely”), which is common to the Latin texts of Oribasius and the New York Collection, in correspondence to the passage in Soranus’ text where one can read πολὺ (“much”), transmitted by the *codex unicus* P and accepted by the editors. In his edition, conversely, Ilberg accepts Ermerins’ conjecture πάλιν (“rather, instead”), which is fully confirmed by the Latin translations.⁶¹ The Latin phrase *e contrario* (“on the contrary, conversely”) translates πάλιν (“rather, instead”) rather than πολὺ (“much”), which is probably a trivialisation. This can be explained with the presence of the adverb ἄγαν (“too much”) just before this phrase, which refers to the adjective εὔπορον (“open”). Although there is no reference to it in the edition of Burguière/Gourevitch/Malinas, Emerins’ emendation, opportunely accepted by Ilberg, appears to be correct, as the comparison with the Latin text confirms. Thus, in a future critical edition one should restore the conjecture, inserting the references to the parallel passage in Latin. The reading transmitted by the manuscript P, conversely, should be rejected just as Ilberg did by conjecture, guessing the truthfulness of Emerins’ emendation.

On the basis of this further information, which can be obtained from the fruitful comparison with the Latin text, we can quite safely infer that Caelius Aurelianus translated Soranus’ work by using a text different from the one transmitted to us. This textual tradition did not have great success and its transmission stopped at the time of the late antique translations. Therefore, when its traces, even if fragmentary or sporadic, emerge or are rediscovered, they should be recorded in order to establish the story and the various passages of the textual transmission, as they can be seen through the indirect tradition.

Thus, as a result of what we have discussed so far, we propose to emend the text as follows:

καὶ μήτε κάθυγρον τὴν μήτραν ἐχούσας μήτ’ αὐχμηράν μηδ’ ἄγαν εὔπορον ἢ πάλιν ἐσφριγμένην

εὔπορον P: *feruidam* (*fortasse ex ἔμπυρον*) *Oribas. Syn.* 5 add. p. 47, 21 Mol. *et Cael. Aurel.* 1.44.327–329 *Drabkin/Drabkin* || ἐσφριγμένην P: *frigidam* (*fortasse ex ἐψυγμένην*) *Oribas. Syn.* 5 add. p. 47, 21 Mol. *et Cael. Aurel.*

61 Cf. Ermerins (1869).

1.44.327–329 *Drabkin/Drabkin* || πάλιν Ilberg *ex emendatione Ermerinsii* (1869), *cf.* e contrario *Oribas. Syn.* 5 add. p. 47, 21 *Mol. et Cael. Aurel.*
 1.44.327–329 *Drabkin/Drabkin*: πολὺ P

(It is convenient that women) have the uterus neither too wet nor too dry, neither too open nor, conversely, too closed.

Each single case examined shows that the research which takes into account the Greek and the Latin tradition can be very constructive in order to accomplish a better *constitutio textus* and to understand more in depth how the text has come to us. The results of our research have shown that we work on a fortunate case, in which the rather scant Greek tradition is supported by the older and, therefore, indispensable Latin tradition. Oribasius' work, that is, has Latin sources which are essential in order to offer a correct reading of the Greek text. This, of course, gives the opportunity to analyse the Latin tradition too. Equally relevant is the indirect tradition, which valuably supports the study of the text and the variants that we can read. As a consequence, comparing the two traditions is a necessary preliminary operation that allows us to obtain a general picture of the state of the text, of the philological investigations to conduct, and of the linguistic and lexical changes that occurred in the passage from Greek to Latin. It also allows us to understand more about the fortune and the circulation of the texts.

Moreover, it is important to conduct a "vertical" analysis of the various works of Oribasius' corpus in Greek and Latin and of the indirect witnesses in order to understand the differences concerning the linguistic register, the fruition, and the readership of the works. Most importantly, such "vertical" analysis will improve the *constitutio textus* too.

We hope, therefore, that, starting from the *Synopsis*, more general work on Oribasius, which will include both Greek and Latin sources in the critical apparatus, will commence soon.

Bibliography

- Aletta, A. (2008), "Per una puntualizzazione cronologica del Morgan 652 (Dioscoride)," in: Atsalos (ed.), 771–778.
- Arnesano, D. (2008a), "La minuscula 'barocca'. Scritture et libri in Terra d'Otranto nei secoli XIII e XIV," Galatina.
- (2008b), "*Libri inutilis* in Terra d'Otranto. Modalità di piegatura di bifogli nella realizzazione del Laur. 87.21," in: Lucà (ed.), 191–200.

- Atsalos, B. (ed.) (2008), *Actes du 6^e colloque international de paléographie grecque (Drama, 21–27 septembre 2003)*, Athens.
- Beccaria, A. (1956), *I codici di medicina del periodo presalernitano (secoli IX, X, XI)*, Rome.
- Bernardinello, S. (1986), “Tselikas (Agamemnon). Λακεδαιμόνιοι βιβλιογράφοι τοῦ 15ου αἰ. (Συμβολὴ στὴν ἔρευνα τοῦ ἔργου τους). (Πραγματικά α’ Τοπικοῦ Συνεδρίου Λακωνικῶν Μελετῶν. Μολάοι 5–7 Ἰουνίου 1982) (Ἀθήναι, 1983, 281–288),” *Scriptorium* 40, *Bulletin Codicologique* 80, n. 372.
- Bianconi, D. (2010), “Età comnena e cultura scritta. Materiali e considerazioni alle origini di una ricerca,” in: Bravo García (ed.), 75–96 and 707–718.
- Boudon-Millot, V. (2007), *Galien, I. Introduction générale. Sur l'ordre de ses propres livres; Sur ses propres livres; Que l'excellent médecin est aussi philosophe*, Paris.
- Bravo García, A. (ed.) (2010), “The Legacy of Bernard de Montfaucon: Three Hundred Years of Studies on Greek Handwriting” (Proceedings of the Seventh International Colloquium of Greek Palaeography Madrid-Salamanca, 15–20 September 2008), Turnhout.
- Buhl, M.S./Kurras, L. (1969), *Die Handschriften der ehemaligen Hofbibliothek Stuttgart*, 4.2, Wiesbaden.
- Burguière, P./Gourevitch, D./Malinas, Y. (1988–2000), *Soranos d'Éphèse. Maladies des femmes*, 4 vol., Paris.
- Bussemaker, U.C./Daremborg, Ch. (1851–1876), *Œuvres d'Oribase*, Paris.
- Buzzi, S. (2008a), “Aezio Amideno 16.124.12–25 e 125.1–6 Zervós nel Parisinus suppl. Gr. 446,” *Galenos* 2, 119–127.
- (2008b), “Paolo Egineta 7, 11, 8, 7–18 Heiberg nel cod. Paris. Suppl. Gr. 446,” *Quaderni del Dipartimento di filologia, linguistica e tradizione classica Augusto Rostagni* 7, 99–103.
- (2009), *Le “Eclogae” di Oribasio. Edizione e traduzione*, Ph.D. thesis discussed on 28 February 2009, University of Turin.
- Carbonelli, G. (1921), “Frammento medico del sec. VII. Cod. Vat. Urb. lat. 293,” *Rassegna di clinica, terapia e scienze affini* 20: 1–2, 5–30.
- (1858), *A Catalogue of the Manuscripts Preserved in the Library of the University of Cambridge*, Cambridge.
- Cavallo, G. (1980), “La trasmissione scritta della cultura greca antica in Calabria e in Sicilia tra i sec. x–xv. Consistenza, tipologia, fruizione,” *Scrittura e civiltà* 4, 157–245.
- (1983), “La cultura a Ravenna tra Corte e Chiesa,” in: *Le sedi della cultura nell'Emilia Romagna*, 1. *L'Alto Medioevo*, Milan, 29–51.
- (ed.) (1987), *Le strade del testo*, Bari.
- Ceresa, M./Lucà, S. (2008), “Frammenti greci di Dioscoride Pedanio e Aezio Amideno in una edizione a stampa di Francesco Zanetti (Roma 1576),” *Miscellanea Bibliothecae Apostolicae Vaticanae* 15, 191–229.

- Concasty, M.-L. (1953), *Manuscripts grecs originaux de l'Italie méridionale conservés à Paris* (Atti dell'VIII° congresso internazionale di studi bizantini), 1, 22–34.
- Delisle, L. (1874), *Le cabinet des manuscrits de la Bibliothèque Nationale*, Paris.
- Drabkin, M.F./Drabkin, I.E. (1951), “*Caelius Aurelianus. Gynaecia*: Fragments of a Latin Version of Soranus’ *Gynaecia* from a Thirteenth Century Manuscript,” Baltimore.
- Ermerins, F.Z. (1869), *Sorani Ephesii Liber de muliebribus affectionibus*, Utrecht.
- Euw, A. von (2008), *Die St. Galler Buchkunst vom 8. bis zum Ende des 11. Jahrhunderts*, St. Gallen.
- Falkenstein, C.C. von (1839), *Beschreibung der königlichen öffentlichen Bibliothek zu Dresden*, Dresden.
- Formentin, M. (1978), *I codici greci di medicina nelle tre Venezie*, Padua.
- Gamillscheg, E./Harlfinger, D./Hunger, H. (1989), *Repertorium der griechischen Kopisten, 800–1600, 2 A-B Handschriften aus Bibliotheken Frankreichs und Nachträge zu den Bibliotheken Großbritanniens*, Vienna.
- Garzya, A. (1989), *Contributi alla cultura greca nell'Italia meridionale*, 1, Naples.
- Hagen, H. (1875), *Catalogus codicum Bernensium (Bibliotheca Bongarsiana)*, Bern.
- Halm, C./Meyer, G. (1881), *Catalogus codicum Latinorum bibliothecae regiae Monacensis*, Munich.
- Heiberg, J.L. (1921–1924), *Paulus Aegineta. Epitomae medicae libri septem*, Leipzig/Berlin.
- Ilberg, J. (1910), *Die Überlieferung der Gynäkologie des Soranos von Ephesos*, Leipzig.
- Imbault Huart, M.-J./Dubief, L./Merlette, B. (1983), *La médecine au Moyen Âge à travers les manuscrits de la Bibliothèque Nationale*, Paris.
- Irigoin, J. (1962), “Survie et renouveau de la littérature antique à Constantinople (9^e siècle),” *Cahiers de civilisation médiévale* 5, 287–302.
- Jørgensen, E. (1923), *Catalogus codicum Latinorum medii aevi Bibliothecae Regiae Hafniensis*, Copenhagen.
- Langslow, D.R./Maire, B. (eds.) (2010), *Body, Disease and Treatment in a Changing World: Latin Texts and Contexts in Ancient and Medieval Medicine* (Proceedings of the Ninth International Conference on Ancient Latin Medical Texts, Hulme Hall, University of Manchester, 5th–8th September 2007), Lausanne.
- Lowe, E.A. (1934–1966), *Codices Latini antiquiores: A Palaeographical Guide to the Latin Manuscripts Prior to the Ninth Century*, Oxford.
- Lucà, S. (ed.) (2008), *Libri palinsesti greci. Conservazione, restauro digitale, studio* (Atti del convegno internazionale, Villa Mondragone-Monte Porzio Catone-Università di Roma Tor Vergata-Biblioteca del Monumento nazionale di Grottaferrata, 21–24 aprile 2004), Rome.
- MacKinney, L.C. (1937), *Early Medieval Medicine: With Special Reference to France and Chartres*, Baltimore.
- Mazzini, I. (2007), *I medici di Roma antica in cattedra. Salute, bellezza, benessere, dieta, sesso, aborto, malattie mentali, epilessia, lebbra, invecchiamento, etica medica ed altro*, Forlì.

- Messina, F. (2007), "Le traduzioni latine di Oribasio. Relazioni tra la redazione *Aa* e la redazione *La*," *Sileno* 33.1–2 (Studi di filologia greca e latina offerti a Giovanni Salanitro dai suoi allievi), 95–138.
- (2008), *Le traduzioni latine di Oribasio*, Ph.D. thesis discussed on 18 July 2008, University of Catania.
- (2010), "Nuovi frammenti dei *Gynaecia* di Celio Aureliano nelle traduzioni latine della *Synopsis ad Eustathium* di Oribasio," in: Langslow/Maire (eds.), 173–188.
- Molinier, A. (1873–1876), *Anciennes traductions d'Oribase*, in: Bussemaker/Daremberg, 5: 799–937; 6, Paris.
- Mørland, H. (1932), *Die lateinischen Oribasiusübersetzungen*, Oslo.
- (1940), *Oribasius Latinus*, Oslo.
- Muratore, D. (2009), *La biblioteca del cardinale Niccolò Ridolfi*, Alessandria.
- Naumann, R. (1838), *Catalogus librorum manuscriptorum qui in Bibliotheca Senatoria ciuitatis Lipsiensis asservantur. Codices orientalium linguarum descripserunt H.O. Fleischer et F. Delitzsch*, Leipzig.
- Noret, J. (1979), "Trente-six grands folios onciaux palimpsestes (avec un fragment inédit de Paul d'Égine)," *Byzantion* 49, 307–313.
- Omont, H. (1886–1898), *Inventaire sommaire des manuscrits grecs de la Bibliothèque Nationale*, reprint (2000) Hildesheim/Zurich/New York.
- Pellegrin, É./Fohlen, J./Jeudy, C./Riou, Y.F. (1975–1982), *Les manuscrits classiques latins de la Bibliothèque Vaticane*, 1–2, Paris.
- Pérez Martín, I. (2008), "El Escorialensis X.IV.6. Un iatrosophion palimpsesto en el círculo mesinés de Constantino Láscaris," in: Lucà (ed.), 279–294.
- Petit, C. (2010), "La tradition manuscrite du traité des *Simples* de Galien. *Editio princeps* et traduction annotée des chapitres 1 à 3 du livre I," in: Roselli (ed.), 143–165.
- Pigeaud, A./Pigeaud, J. (eds.) (2000), "Les textes médicaux latins comme littérature" (Actes du 4^e colloque international sur les textes médicaux latins du 1^{er} au 3 septembre 1998 à Nantes), Nantes.
- Raeder, J. (1926), *Oribasii Synopsis ad Eustathium, Libri ad Eunapium*, Lipsiae/Berolini.
- (1933), *Oribasii collectionum medicarum reliquiae*, Lipsiae.
- Rasarius, I.B. (1554), *Oribasii Sardiani medici longe excellentissimi opera, quae extant omnia, tribus tomis digesta: Primus habet Synopseos ad Eustathium filium libros novem, . . . item duos libellos de machinamentis & laqueis, suis figuris exquisite illustratos: Cum indice et verborum*, Venetiis.
- Riou, Y.-F. (1979), "Un fragment d'un manuscrit disparu d'Oribase: C.L.A. 116 (Vatican, Urb. Lat. 293, f° 95–96, 8^e s.)," *Scriptorium* 33, 235–237.
- Roselli, A. (ed.) (2010), *Storia della tradizione e edizione dei medici greci* (Atti del VI colloquio internazionale, Paris 12–14 aprile 2008), Naples.
- Scherrer, G. (1875), *Verzeichnis der Handschriften der Stiftsbibliothek von St. Gallen*, Halle, reprint (1975) Hildesheim/Zurich/New York.

- Schnorr von Carolsfeld, F. (1882), *Katalog der Handschriften der sächsischen Landesbibliothek zu Dresden*, Leipzig.
- Touwaide, A. (2009), "Byzantine Medical Manuscripts: Towards a New Catalogue, With a Specimen for an Annotated Checklist of Manuscripts Based on an Index of Diels' Catalogue," *Byzantion* 79, 453–595.
- Urso, A.M. (2000), "Procedimenti di riscrittura nei *Gynaecia* di Mustione," in: Pigeaud/Pigeaud (eds.), 297–315.
- Vázquez Buján, M.E. (1994), "Celso y las versiones latinas de Oribasio," *Euphrosyne* 22, 27–44.
- Warner, G.F./Gilson, J.P. (1921), *Catalogue of Western Manuscripts in the Old Royal and King's Collections*, 2, London, reprint (1997), Munich.
- Wickersheimer, E. (1966), *Les manuscrits latins de médecine du haut Moyen Âge dans les bibliothèques de France*, Paris.
- Wilson, N.G. (1987), "Aspects of the Transmission of Galen," in: Cavallo (ed.), 45–64.
- Zervós, S. (1911), "Aëtius Amidenus, *Iatricorum liber IX*," *Athena* 23, 273–390.

Galen of Pergamum: A Witness of Scribonius Largus' Œuvre

Alessia Guardasole

Abstract

In this study, we examine two pharmacological recipes, transmitted in Latin in §50–52 of Scribonius Largus' *Book of Recipes*, and in Greek in §3.3 of Galen's pharmacological work entitled *On the Composition of Drugs according to Places* (*De compositione medicamentorum secundum locos*). The aim of our study is to demonstrate the importance of taking into account the history of texts with respect to both primary and secondary sources, for the establishment of the text, before resorting to indirect sources, however obvious or illustrious they may be.

While preparing the edition of Galen's treatise entitled *On the Composition of Drugs according to Places* (*De compositione medicamentorum secundum locos*), we found that Kühn's text in volumes 12–13 of his monumental edition is often misleading and that one needs to resort to medieval manuscripts in order to benefit from Galen's account as an indirect source of other earlier authors.

We would like to direct attention to a recipe that appeared in this Galenic treatise under the name of Scribonius Largus, a well-known recipe for those who specialise in Scribonius' work, who often refer to this recipe when trying to resolve a highly problematic passage in the *Book of Recipes* (*Compositiones*) tradition.

Our study will focus on §50–52 of the *Book of Recipes*, as they were edited by Sergio Sconocchia,¹ Georg Helmreich, and Joëlle Jouanna-Bouchet:

※ Translated by Paige Mitchell, subsequently revised by Jon Wilcox. All translations from Greek and Latin are mine.

1 Sconocchia (1983: 32, 4–33, 3). It should be noted that only the units of Sconocchia's *apparatus criticus* that are of interest to our argument are included here.

50. Ad grauem odorem narium (ὄζαιναν
Graeci hoc uitium uocant) aeruginis
pondo quadrantem aut squamae
aeris pondo quadrantem aut
utrumque rerum pondo sescuncias
in mellis despumati pondo libra
decoquere oportebit et eo uti liquido
per pinnam. <ad polypos>, cum sint a
cerebro, paribus ponderibus sicca bene
faciunt.^a

51. Ad *polypos* misy *usti*, *chalcitidis*
ustae, aeris flos *usti*, *soreos*, aeris
squamae <paria pondera> *tusa et*
cribrata.^b *sicco medicamento* per

pinnam saepius nares tactae, eiusmodi
uitia attenuata *quotidie* emendantur.²

50. For the foul odour of the nose (which
the Greeks called *ozainan*), one must cook
in one pound of clarified honey a quarter
pound of verdigris or a quarter pound
of copper scale or one ounce and a half of
these two ingredients and administer the
remedy in its liquid form using a feather.

<For polyps>, when they come from the
brain, these ingredients, in the same
quantities but in dry form, are effective.

51. For polyps, equal amounts of burnt
mysi, burnt copper-ore, burnt copper
flower, sory, copper scales, ground and
passed through a sieve, are effective. This
dry medication is often

applied to the nostrils, using a feather,
and illnesses of this type heal because
they are alleviated each day.³

^a cum sint . . . faciunt *praemissis uerbis* ad polypos, *huc transp.* E. Cecchini e c. 51 *fine* . . . *post emendantur* (LII) *perperam tradunt* TR || ^b ad polypos misy usti, chalcitidis ustae, aeris flos usti, soreos, aeris squamae paria pondera tusa et cribrata sicco medicamento *etc. scripsi* || ad polipos misi usti cachtitidis ustae aeris flos ustum sors aeris squamae tusae cribrata sicco *etc. T* || ad polypos misy ustum, chalcitis usta, aeris flos, ustum sori, aeris squama tusa, cribrata, si eo *etc. R* || ad polypos sanandos: misui ustum, chalcitidis ustae, aeris [usti] squamam, paribus ponderibus siccata haec bene teres et eo pulvere uteris adsidue M || *uocabula* si eo . . . a cerebro a M *omissa deleuit Cornarius* || ad polypos, cum sint a cerebro, misy ustui . . . cribrata, paribus ponderibus siccata, bene faciunt si eo . . . attenuata cotidie emendantur *Rhod.*⁴

2 The differences noted between Sconocchia's edition (words in italics *above*) and Georg Helmreich's edition (1887: 24, 1–15) (H.) and Joëlle Jouanna-Bouchet (2000: 223, 3–13) (J.B.): H. and J.B.: *polipos* | H. and J.B.: *ustum* | H. and J.B.: *chalcitis* | H. and J.B.: *usta* | H.: *ustum sori*, J.B.: *ustum, sori* | H.: *squama tusa cribrata*, J.B.: *squama tusa, cribrata* | H.: *Si eo medicamento*, J.B.: *Sicco medicamento* | H.: *cotidie*, J.B.: *quotidie* | H. and J.B. write after *emendantur, cum sint a cerebro paribus ponderibus sicca bene faciunt*, which Sconocchia moves to the end of §50.

3 Translation of G. Helmreich's edition (only the differences with respect to the translation of Sconocchia's text are listed): "burnt copper flower, sory . . . ground and passed through the sieve. If one applies this medication regularly to the nostrils, using a feather, one is able to cure illnesses of this type; . . . given that polyps come from the brain, the dry ingredients in equal quantities, offer good results." Translation of J. Jouanna-Bouchet's edition (only the differences with respect to the translation of Sconocchia's text are listed): "burnt copper flower, sory; . . . given that polyps come from the brain, the dry ingredients in equal quantities, offer good results."

4 T= *codex Toletanus Capit.* 98.12, sixteenth c. in.; R= *editio princeps Ioannis Ruellii*, Lutetiae Parisiorum 1528; M= *Marcelli de medicamentis*, Niedermann/Liechtenhan (1968 2nd ed.), Berlin; *Rhod.* = Ioannes Rhodius, editor of *Compositiones* in Padua, in 1655. Regarding

52. Sed quia plerumque uexantur nares grauedine, quae tumore earum efficitur, non alienum est scire te eius quoque rei remedia. prodest igitur quies unius diei et ab omni re abstinencia. perungendae nares erunt bitumine liquido aut murra stacta uel pice liquida. postero die pastillus iste nocte super cibum dandus est et, si opus fuerit, per triduum continuum eodem tempore. Recipit autem haec: apii seminis pondo trientem, anesi pondo quadrantem, alterci seminis, quod hyoscyamum dicitur, pondo trientem, opii pondo unciam.

52. But given that most of the time the nose is infected by catarrh, caused by a swelling of the nose, it is appropriate that you also know about remedies for this disorder as well. Thus, a day of rest and total abstinence are beneficial. The nose must be carefully coated with liquid bitumen, trickling myrrh,⁵ or liquid pitch. The following day, this lozenge must be administered at night, after mealtime, and if necessary, for three consecutive days at the same time. This lozenge contains the following ingredients: a third of a pound of celery seeds, a quarter of a pound of anise, a third of a pound of henbane seeds, which is called *hyoscyamum*, an ounce of opium.

Sconocchia's edition is visibly different from Helmreich's, firstly, due to interventions derived from the accounts taken from the *Codex Toletanus* (T) and the indirect tradition, and secondly, in view of E. Cecchini's conjecture, which he details in his study about new findings in T.⁶ His conjecture concerns the passage that has been visibly altered at the end of §51 (cf. *apparatus criticus*), and involves the moving of the phrase *cum sint a cerebro, paribus ponderibus sicca bene faciunt* ("when they come from the brain, these ingredients, in the same quantities but in dry form, are effective") to the end of §50—whereas the phrase is transmitted in a rather problematic fashion at the end of §51—along with the incorporation of the indication <*ad polypos*> ("For polypos").⁷

When the transmission of text is disrupted to such a degree, having access to an account via the indirect tradition is invaluable. As an example, a recipe

manuscript transmission and its problems, we recommend Sconocchia's clarifications (1981: 11–30), and the preface of his edition of *Compositiones*, Sconocchia (1983: IX–XVII).

5 This is liquid myrrh, the most precious and renowned since antiquity, which naturally flowed from the myrrh tree, via spontaneous secretion, without the need of an incision.

6 Sconocchia (1981: 22–25). Other works in which Sconocchia makes reference to this passage are: Sconocchia (1985: 207–208); Sconocchia (1993: 857, n. 57).

7 J. Jouanna-Bouchet (2000: 486) does not follow Sconocchia's conjecture, which, granted, she deems as "clever," but also as "uneconomic"; she preserves *cum sint ~ faciunt* at the end of §51, while supposing that *cum sint a cerebro* is a gloss that would have been added in the margin to explain the need to use dry ingredients (*sicca*), which would have been later inserted into the text, cf. Jouanna-Bouchet (2000: 486–487).

that Galen includes in his treatise *On the Composition of Drugs according to Places* (*De compositione medicamentorum secundum locos*), under the name of Scribonius, has attracted the attention of scholars since the Renaissance.

Galen's Account

This recipe appears in an extract by Asclepiades Pharmakion, a doctor from the imperial age (the last quarter of the first century of our era), which Galen preserved:

Σκριβωνίου Λάργου, ποιεῖ πρὸς πάσαν ἐξοχὴν. μίσυος κεκαυμένης, χαλκίτεως κεκαυμένης, χαλκάνθης κεκαυμένης, σώρεως, λεπίδος χαλκοῦ ἀνά < ἡ'. ξηρῷ παράπτου. δεῖ δὲ προαναπαύειν πρὸ μιᾶς ἡμέρας καὶ τῇ ἐπιούσῃ τὸ φάρμακον ἐπιτιθέναι μετὰ τὴν τροφήν. πρότερον δὲ δεῖ ὑποχρῖσθαι τοὺς μυκτῆρας ἀσφάλτῳ ἢ πίσσῃ ὑγρῇ ἢ σμύρνης στακτῇ (Ascl. Pharm. ap. Gal. *De comp. med. sec. loc.* 3.3 [12.683.11–17 K.]).

A remedy by Scribonius Largus, it is effective against all protuberances. Burnt misy, burnt copper ore, burnt blue vitriol, sory, copper scales, eight drachmas of each. Apply the remedy in dry form. One must also rest the day at first, and the following day, apply the drug after mealtime. Firstly, one must lightly coat the nostrils with bitumen, liquid pitch, or trickling myrrh.

The recipe of this remedy was transmitted through a version that had obviously been abridged, presenting close matches with the text from §51–52 by Scribonius. Even though, unfortunately, these matches do not rectify the large textual problem mentioned above, they are useful in correcting other parts of Scribonius' text. Among modern scholars, Paul Jourdan,⁸ for instance, proposed linking the adjective *ustum* ("burnt") (becoming *usti* in Sconocchia's edition) to *aeris flos* ("burnt copper flower") rather than to *soreos* ("burnt sory") (*aeris flos, ustum sori* R Helmreich). Furthermore, the Galenic text is also very useful because it confirms the version *sicco medicamento* ("with the dry medication") found in T, since it presents the term ξηρῷ (*scil.* φαρμάκῳ, "with the dry remedy"), whereas R retains the text *si eo medicamento* ("if with this drug").

⁸ Jourdan (1919: 52–53).

The rest of the recipe very closely matches the beginning of §52, mentioned above:

Prodest igitur quies unius diei et ab omni re abstinentia.

Thus, a day of rest and total abstinence are beneficial.

Δεῖ δὲ προαναπαύειν πρὸ μιᾶς ἡμέρας

One must also rest the day before.

Perungendae nares erunt bitumine liquido aut murra stacta uel pice liquida.

One must carefully coat the nose with liquid bitumen, trickling myrrh, or even liquid pitch.

Πρότερον δὲ δεῖ ὑποχρίσαι τοὺς μυκτῆρας ἀσφάλτῳ ἢ πίσσῃ ὑγρᾷ ἢ σμύρνης στακτῇ

First, one must lightly coat the nostrils with bitumen, liquid pitch, or trickling myrrh.

Postero die pastillus iste nocte super cibum dandus.

The following day, this lozenge must be given at night, after mealtime.

καὶ τῇ ἐπιούσῃ τὸ φάρμακον ἐπιτιθέναι μετὰ τὴν τροφήν.

and the following day, administer the drug after mealtime.

In drawing parallels, one must take into account the history of how these texts were transmitted, not only Scribonius' text, but also Galen's. We must be extremely careful if we start to pick up on variations between the two texts, the origins of which must be explained as well.

In point in fact, Galen's text did not reach us in the form in which we read it today. Its current state is the result of various interventions undertaken by the Saxon scholar Janus Cornarius (*ca.* 1500–1558), who resorted twice to Scribonius' Latin text to prepare:

the edition with Latin translation and commentary of Galen's treatise *On the Composition of Drugs according to Places* (*De compositione medicamentorum secundum locos*):⁹

9 As we can deduce from the commentary's preface, Cornarius had worked on this as early as 1535, thus, before the publication of his edition of the Marcellus treatise (cf. following note). Regarding Cornarius, a German scholar from Zwickau, whose birth name was Johann Haynpol, cf. primarily Mondrain (1997) and Monfort (1998) along with cited bibliographies. Regarding the *Opus medicum*, cf. Guardasole (2011).

Opus medicum practicum, uarium, uere aureum, et postremae lectionis. Claudii Galeni Pergameni, medici longe omnium clarissimi De compositione pharmacorum localium, siue secundum locos, Libri decem, recens fideliter & pure conuersi a Iano Cornario medico physico. Iani Cornarii medici physici Commentariorum medicorum in eosdem Galeni libros conscriptorum Libri decem. In quibus omnes corrupti illorum librorum loci restituuntur, & omnes difficiles exponuntur, ampliusque aliquot milia (*sic*) rerum ac locorum in graecis ac latinis medicis obiter explicantur, emendantur, ac restituuntur¹⁰ (Basileae, 1537).

and the *editio princeps* of *The Book of Medicaments* (*De medicamentis*) by Marcellus Empiricus, which he published in 1536:

Marcelli uiri illustris de Medicamentis empiricis, physicis, ac rationabilibus Liber, ante mille ac ducentos plus minus annos scriptus, iam primum in lucem emergens, et suae integritati plerisque locis restitutus¹¹ (Per Janum Cornarium Medicum, Physicum Northusenem (*sic*), Basileae, 1536).

It is in the note to the Galenic passage quoted above from his *Medical Œuvre* (*Opus medicum*, p. 378 *ad* Scribonii Largi *ad omnia exuberantia*), that, for the first time, the Saxon scholar evokes the language used to write Scribonius' *Book of Recipes* (*Compositiones*), proposing a hypothesis that this treatise would have been composed in Greek, and later anonymously translated into Latin during the era of the Valentinian empire (321–375 A.D.).¹² Cornarius formulates this

10 Practical, varied, a truly splendid medical work and of final reading. Ten books by Claudius Galenus of Pergamum, arguably the most recognised physician, on the topic of the composition of local drugs, or according to place, recently translated—faithfully and correctly—by town physician Janus Cornarius. These ten books that contain medical commentaries written by town physician Janus Cornarius, were written as an explanation of the same books of Galen. In these commentaries, all corrupted passages of the said books are reinstated and all of the difficult places are explained in passing. Over a thousand facts and passages in Greek and Latin medical texts are also explained, amended, and restored.

11 The book on remedies, based on experience, on natural science and scientific arguments, written by Marcellus, a *uir illuster* (senatorial grade), more or less one thousand and two hundred years ago and now seeing the light of day for the first time, with very many passages completely restored.

12 *Opus medicum*, 378; Cornarius goes into more depth on this issue in the preface of the Marcellus Empiricus edition (7–8), in a passage that Scribonius editors know very well.

hypothesis upon finding differences between the passage that Galen conveys in an extract by Asclepiades,¹³ which contains the Greek term *χάλκανθος* (“blue vitriol”), and the text from the *Book of Recipes* (*Compositiones*) that contains the expression *aeris flos* (“copper flower”), which corresponds more to the Greek *χαλκοῦ ἄνθος* (“copper flower”).¹⁴ For Cornarius, the alternative is simple: either we accept his hypothesis that there was a translator during late antiquity who translated into Latin Scribonius’ text, which was originally written in Greek, or we admit that Asclepiades committed a mistake when he translated Scribonius’ Latin text into Greek, which, for Cornarius, would be a sacrilege:

Nisi quis Asclepiadae potius hoc crimen imputare uelit, quod latine a Scribonio scripta male intellecta uerterit in graecum, quod apud me piaculum sit credere, si modo exemplar Galeni non est corruptum. . . . Verum in hoc discordant, quod in Galeno *χαλκάνθης κεκαυμένης* legitur, in Scribonio uero eius loco *aeris flos* habetur, et *κεκαυμένης* uox ad sori, non ad *aeris florem* relata est. Aut igitur *χαλκάνθην* *aeris florem* interpretatus est Scribonii interpres, aut *aeris florem* rite a Scribonio scriptum, Asclepiades *χαλκάνθην* male conuertit, quod tamen religio sit opinari: atque sic alteruter deliquit quod *χαλκοῦ ἄνθος* pro *χαλκάνθης*, aut uicissim hoc pro illo expressit, similitudine uocum graecarum deceptus, quum res sint quidem diuersissime, sed quae tamen ambae possint in hoc medicamentum ammisceri (*Opus medicum*, p. 378).

Unless we want to impute this crime to Asclepiades, for misunderstanding and mistranslating into Greek what Scribonius had written in Latin, but believing that, in our opinion, would be a sacrilege, unless, however, Galen’s copy was corrupted. . . . But, the passages do not coincide seeing that in Galen, we read *χαλκάνθης κεκαυμένης* [“burnt blue vitriol”], whereas in its place in Scribonius is *aeris flos* [“copper flower”]—the term *κεκαυμένης* is linked to sory and not to copper flower. So either

We would like to underline here just the reservations that S. Sconocchia formulates in the introduction of his edition of Scribonius (Sconocchia [1983: VII]).

- 13 Regarding the Scribonius extracts by Asclepiades, cf. Fabricius (1972: 222); Sconocchia agrees with his conclusions (1985: 207).
- 14 For the different properties of the two ingredients, cf. Gal. *De simpl. med. temp. ac fac.* 9.3.34 (12.238.3–4 K.) (*χάλκανθος*, “blue vitriol”) and Gal. *De simpl. med. temp. ac fac.* 9.3.37 (12.242.12–13 K.) (*χαλκοῦ ἄνθος*, “copper flower”); Galen’s passages are reproduced by Oribasius and Aetius: Oribas. *Coll. med.* 15.1.27.45; 50 (Raeder *CMG* 6.1, 2, 289, 14–15; 27–28); Aët. 2.77 and 2.79 (Olivieri *CMG* 8.1, 176, 22–23; 177, 21–22).

Scribonius' translator translated the term χαλκάνθην as *aeris florem* ["copper flower"], or Scribonius did indeed write *aeris flos* ["copper flower"], and Asclepiades mistranslated χαλκάνθην ["blue vitriol"]—but believing this would be a sacrilege. Therefore, one or the other committed a mistake in translating χαλκοῦ ἄνθος ["copper flower"] in the place of χαλκάνθης ["blue vitriol"], or the other way around, the second instead of the first, led astray by the resemblance of the terms in Greek. And while their realities are extremely different, they are such that they could be easily confused in this remedy.

The rest of Cornarius' commentary is all the more intriguing for our study. He notes that Asclepiades had rewritten the recipe for Scribonius' two remedies, a text, nevertheless, that he does not hesitate to change:

Porro pergit deinde Scribonius ad grauedinis remedia, sic inquires. Prodest igitur quies unius diei, & ab omni re abstinencia, perungendae nares erunt bitumine liquido aut myrrha stacte, uel pice liquida, & c. quae uerba Asclepiades ad praesens medicamentum retulit dicens δεῖ δὲ προαναπαύειν πρὸ μιᾶς ἡμέρας, τῇ δ' ἐπιούσῃ τὸ φάρμακον ἐπιτιθέναι μετὰ τὴν τροφήν. πρότερον δὲ δεῖ ὑποχρῖσθαι τοὺς μυκτῆρας ἀσφάλτῳ ἢ πίσσῃ ὕγρῳ ἢ σμύρνῃ στακτῇ. Quare et hic apparet, uel Scribonium male translatum esse, uel Asclepiadem non intellexisse Scribonium; . . . aut certe exemplar alterum corruptum esse, quod tamen de Scribonii quam Galeni exemplari credere malo. Nam integram Galeni lectionem puto, nisi quod προανατρίβειν dubia sententia legitur, pro quo substituendum puto προαναπαύειν, ut sit quod Scribonius dixit. Prodest quies unius diei (*Opus medicum*, p. 379).

Subsequently, Scribonius proceeds with remedies for catarrh, saying: "thus, a day of rest and total abstinence are beneficial. One must carefully coat the nose with liquid bitumen, or trickling myrrh, or even liquid pitch, etc." Asclepiades linked these words to the remedy in question, stating: "one must also rest (προαναπαύειν) the day before, and the following day, apply the drug after mealtime. Firstly, one must lightly coat the nostrils with bitumen, or liquid pitch or trickling myrrh." This is why it is also obvious in this passage that Scribonius either has been mistranslated, or Asclepiades misunderstood Scribonius . . . or, that one of the two texts was corrupted, which I would like to think happened to Scribonius' and not Galen's text. And thus, I believe that Galen's version is the correct one, despite the fact that we find προανατρίβειν, the meaning of which

is uncertain and I believe that it should be replaced by προαναπαύειν, in order to have what is written in Scribonius' text. A day of rest is beneficial.

This is where we discover, for the first time in the history of this text, traces of Galen's passage as it appeared in all medieval manuscripts,¹⁵ which we pass on as such below, i.e. without the successive interventions of scholars such as Cornarius, Chartier or Kühn:

Σκριβωνίου Λάργου, ποιεί πρὸς πᾶσαν ἐξοχὴν.^a μίσυος κεκαυμένου,^b χαλκίτεως κεκαυμένης, χαλκάνθου^c κεκαυμένης, σώρεως, λεπίδος χαλκοῦ ἀνὰ <η>. ξηρῷ παράπτου. δεῖ^d δὲ προανατρίβειν^e πρὸ μιᾶς ἡμέρας,^f τῇ δ'^g ἐπιούσῃ τὸ φάρμακον ἐπιτιθέναι μετὰ τὴν τροφήν. πρότερον δὲ δεῖ προὔποχρῖσαι^h τοὺς μυκτῆρας ἀσφάλτῳⁱ ἢ πίσσῃ ὕγρᾳ ἢ σμύρνης στακτῇ.

Remedy by Scribonius Largus, it is effective against all protuberances. Burnt misy, burnt copper ore, burnt blue vitriol, sory, copper scales, eight drachmas of each. Apply the remedy in dry form. One must also rub the area beforehand on the previous day, and the following day, apply the drug after mealtime. Firstly, one must lightly coat the nostrils beforehand with bitumen, liquid pitch, or trickling myrrh.

Despite the correction of the participle κεκαυμένου ("burnt")—which, even though it refers to μίσυος ("misy"), was revised to the feminine form (κεκαυμένης) in all editions beginning with Aldine (1525)—Galen's passage contains the two "new" verbs προανατρίβειν ("rub beforehand") and προὔποχρῖσαι ("coat beforehand"). These two verbs mesh well with pharmacological terminology and practices from the imperial age, as they appear in literary extracts cited by

^a ἐξοχὴν LaMV διάθεσιν R διάθεσιν ἐξόχως PL διάθεσιν ἐξοχὴν MaQ || ^b κεκαυμένου codd. κεκαυμένης Ald.Chart.Kühn || ^c χαλκάνθου LaRPL χαλκάνθης MaMVQ || ^d εἰ MaLQ τὴν R || ^e προανατρίβειν MaLaPMLV προανατριβὴν R παρανατρίβειν Q || ^f καὶ ins. Charterius || ^g τῇ δ' MaLaR(δὲ)PML(δὲ)VQ δ' del. Charterius || ^h προὔποχρῖσαι MaRP(-χρή-)-LQ(-χρή-) ὑποχρῖσαι LaMV || ⁱ ἀσφάλτων M

15 The following is a list of known manuscripts that contain this passage from Galen's treatise with their sigla: *Marc. gr.* 288 (coll. 913), membr., twelfth c., **Ma**; *Laur. Pl.* LXXV 17, bomb., twelfth c., Ioannikios' manuscript, **La**; *Vat. Reg. gr.* 172, chart., fourteenth c., **R**; *Paris. gr.* 2155, chart., fourteenth c., **P**; *Marc. gr.* 280 (coll. 706), membr., copied for Cardinal Bessarion by Jean Rhosos, who completed the copy on May 8, 1470, **M**; *Laur. Pl.* LXXV 8, chart., 15th c., **L**; *Vat. Pal. gr.* 54, chart., fifteenth–sixteenth c., **V**; *Paris. gr.* 2173, chart., sixteenth c., **Q**.

Galen. The two forms present a simple verb preceded by two prefixes [τρίβειν + (προ- + ἀνα-); χρίω + (προ- + ὑπο-)], a lexical process which allows the writers to indicate the succession of different actions that one should carry out when preparing and administering remedies.¹⁶ In the case of προανατρίβειν, this involves rubbing part of the body to be treated before applying the medication in order to ensure optimal absorption.¹⁷

It is important to underline here that Asclepiades did not simply translate Scribonius' Latin text into Greek; he reformulated it. One only needs to look at the instructions that refer to the second Latin recipe (Sconocchia p. 33, 1–2 *apii seminis pondo trientem ~ opii pondo unciam*, “a third of a pound of celery seeds ~ an ounce of opium”), which are applied to the first recipe in a more concise way. The conciseness comes into play when the length of the treatment (expressed in Scribonius' text by *et si opus fuerit, per triduum continuum eodem tempore*, “if necessary, for three consecutive days at the same time”) is omitted in the Greek translation. This conciseness is further reinforced through the specificities that Greek syntax offers, in comparison to Latin, affording much more freedom, particularly in terms of word order.

The rest of Galen's text, transmitted only by a part of the manuscript tradition, offers us other indications. The table below highlights a problem concerning the transmission of Galen's text. The passage is a remedy whose “title” (προγραφή) and “composition” (συμμετρία) take on two completely different forms within the two main groups¹⁸ of manuscripts:

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- 16 For more examples of Galen's use of προανατρίβειν (according to the *TIG* and therefore, in Kühn's edition), see Heras *ap. Gal. De comp. med. sec. loc.* 1.1 (12.400.11 K.); Criton *ap. Gal. De comp. med. sec. loc.* 1.1 (12.401.11 K., 12.401.15 K., and 12.403.10 K.) and Criton *ap. Gal. De comp. med. sec. loc.* 5.2 (12.827.14 K.); Archig. *ap. Gal. De comp. med. sec. loc.* 1.1 (12.407.6 K.); Asclep. *ap. Gal. De comp. med. sec. loc.* 1.1 (12.417.1 K.). Προὔποχρίειν is attested two other times, one of which can be found in another fragment from Asclepiades: Asclep. *ap. Gal. De comp. med. per gen.* 4.13 (13.743.9 K.) and Gal. *in Hipp. de fract. comm.* 2.72 (18b.524.3). We discuss the lexicon of verbs that are typical of pharmacological literature of the imperial age in several seminars. We also presented a study on the topic at a conference in Berlin in April 2013. The study focused on the transmission of medical and philosophical treatises that only exist today in the form of fragments.
- 17 This practice is most often recommended for treating scalp ailments (see passages cited in the previous note). We have not found this practice in any other treatments for polyps, similar to, in fact, the recommendation to rest, in Cornarius' version, προαναπαύειν (“rest beforehand”).
- 18 We do not use the term “family,” given that our work is still in the provisional stages. Nonetheless, we would like to underline that the way in which the manuscripts are linked to each other seems to be, in this case, the same way they are connected throughout the rest of the treatise.

Galen, *On the Composition of Drugs according to Places* (*De compositione medicamentorum secundum locos*) 3.3 (12.683.18–684.8 K.).

LaMV Kühn

Φιλοξένου χειρουργοῦ πρὸς πολύποδας,
ὀζαίνας, πᾶν ὑπερσάρκωμα, αἰμορροΐδας
καὶ ὃ ἂν βούλῃ ἐσχαρῶσαι.

Χαλκοῦ κεκαυμένου, ἄρσενικοῦ πεφυρμένου
(lege πεφυρμένου), μίσυος ὀπτοῦ^a ἀνὰ
‹β´. διφυροῦς‹ γ´. χαλκίτεως κεκαυμένης,
χαλκάνθης^b κεκαυμένης, λεπίδος χαλκοῦ
ἀνὰ ‹δ´. λείους χρῶ.

MaRPLQ

ἄλλο. Φιλοξένου χειρουργοῦ^c ποιεῖ πρὸς^d
αἰμορραγίας καὶ πρὸς αἰμορροΐδας.^e

Χαλκάνθου ὀπτῆς, χαλκίτεως ὀπτῆς,
λεπίδος χαλκοῦ ἀνὰ ‹α´, διφυροῦς,
ἄρσενικοῦ πεφυρμένου ἀνὰ ‹γ´, μίσυος
κεκαυμένου ‹β´, λείους χρῶ.

^a ὀποῦ MV || ^b χαλκάνθου La

^c Σκριβωνίου Λάργου Q || ^d τὰς ins. Q ||

^e Φιλοξένου χειρουργοῦ πρὸς πολύποδας,
ὀζαίνας, πᾶν ὑπερσάρκωμα, καὶ ὃ ἂν βούλῃ
ἐσχαρῶσαι ποιεῖ πρὸς αἰμορραγίας καὶ
αἰμορροΐδας P

μετὰ δὲ^e τὴν τῶν φαρμάκων ἐπίθεσιν χρώμεθα πατταρμικοῖς τὰς ἐφελκίδας βουλόμενοι
σαλεύειν^f, αἷς ἐκπίπτουσι διὰ^h τριῶν ἢ τεσσάρων. καὶ μετὰ τὸ ἐκπεσεῖν ἀποθεραπεύονταιⁱ
στέατι^j χηνείῳ^k καὶ βουτύρῳ^l μετὰ κηρωτῆς ῥοδίνης.

^e δὲ om. L || ^f βουλόμενοι σαλεύειν MPLV βουλόμενοι ἀλεύειν R βουλόμενοι διασαλεύσαι Q ||

^g αἷ... ῥοδίνης om. RL || ^h ἢ διὰ P || ⁱ ἐκθεραπεύονται Q || ^j στέατος Q || ^k χηνείου Q || ^l βουτύρῳ om. Q

By surgeon Philoxenus, for polyps, ozena,
all types of skin protuberances, haemor-
rhoids and all lesions to promote scab
formation.

Burnt copper, roasted orpiment, cooked
misy, two drachmas of each, three
drachmas of baked pyrites, burnt copper
ore, burnt blue vitriol, copper scales, four
drachmas of each. Use them after they
have been finely ground.

Another one by surgeon Philoxenus. It is
effective for haemorrhages and
haemorrhoids.

Cooked blue vitriol, cooked copper ore,
copper scales, one drachma of each,
baked pyrites, roasted orpiment, three
drachmas of each, two drachmas of
burnt misy. Use them after they have
been finely ground.

After applying the medication, we use sternutatories, in order to loosen scabs
from wounds, which fall off after three or four days. And after they have fallen off, the
wounds are treated with the help of goose fat and butter with a rose cerate.

The situation is not clearer in the *pinakes* of various manuscripts (when existent) because, even in the manuscripts that contain text for polyps (see left column), the *pinax* reproduces the title of the remedy for haemorrhages and haemorrhoids (see right column): LaMV Φιλοξένου χειρουργοῦ πρὸς αἱμορραΐδας (sic!) καὶ αἱμορραΐαν (-ας LaV).¹⁹

Although we cannot find any significant matches for the remedy against polyps in what has been preserved in ancient pharmacology, it is a different story for the remedy against haemorrhages and haemorrhoids, for which we would like to highlight the recipe for a haemorrhoid remedy passed on by Scribonius in Latin:

[*Haemorrhoidas sic curare oportet*] Est autem hoc medicamentum: chalcitidis ustae p. IIII, aeris floris usti p. IIII, misyis usti p. III, aeris squamae p. II, diphrygis p. II, soreos usti p. II, auripigmenti p. II. haec omnia teruntur et sicca ut dixi haemorrhoidibus imprimuntur undique. Scrib. Larg. 227 (Sconocchia p. 103, 3–5).

But there is also this medication: four drachmas of burnt copper ore, four drachmas of burnt copper flower, three drachmas of burnt *misy*, two drachmas of copper scale, two drachmas of baked pyrites, two drachmas of burnt *sory*, two drachmas of red orpiment. All of these ingredients are ground and applied in dry form all over the haemorrhoids, as I have mentioned.²⁰

This passage, along with manuscript Q's version (*Par. gr.* 2173), Σκριβωνίου Λάργου, could lead us to think that an extract of Scribonius appears in Asclepiades' œuvre, and thus, was transmitted via the indirect tradition. However, Q's version could not possibly constitute a decisive element, but it could have come into being through the intervention of a scholar copyist, inasmuch as it is an isolated version of a sixteenth century manuscript that is also quite probably a copy of Ma (*Marc. gr.* 288).²¹

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- 19 As an aside, we would like to highlight the account from P, because even if it presents a synthetic version of the two titles in the text, it reads in the *pinax* Φιλοξένου χειρουργοῦ πρὸς αἱμορραΐας (sic!) καὶ αἱμορροΐδας.
- 20 This §227 of *Compositiones* opens with a recipe (Sconocchia 102, 15–20), which was also transmitted by Galen and taken from Asclepiades Pharmakion's work as well, cf. Gal. *De comp. med. sec. loc.* 9.7 (13.314.1–6 K.).
- 21 The results of our surveys are completely comparable to those described by Helmreich (1923: XXXVII): *Codex Parisinus* 2173... *ita cum Veneto* 279 *conspirare repperi, ut aut ex*

Moreover, it seems obvious that the second part of the recipe, shared by both manuscript groups, refers to the remedy for polyps, and therefore, corresponds to the text that needs editing. It is also quite obvious that early in the copying and transmitting process—the **Ma** manuscript, *Marc. gr.* 288, allows us to establish that *terminus ante quem* is from the twelfth century—a recipe to treat haemorrhoids, which, as a gloss or complement to Philoxenus' indications for haemorrhoids, was initially placed in the margin, was inserted, this time, in the main body of the text, where we find it throughout an entire branch of the manuscript tradition. And finally, the title of the recipe that we read in **P**, where the word αἰμορροΐδας of the original title (cf. above the left column) was eliminated by the copyist, given that it offered a falsified text subsequent to the fusion of the two different titles, is evidence of the intermediary state of the text.

Conclusion

This study, although relatively limited in scope, shows how scholars and historians must always be attentive. As we look into the history of texts, we often discover that the transmitting process is complex, to the extent that many texts undergo significant transformations by the time they reach us. These transformations can, of course, be the result of variations within the manuscript tradition, but also perhaps the result of more or less peremptory interventions by modern day scholars, who slightly modify or even utterly transform the text. A way to identify these deformations is to examine the primary sources (the direct tradition) and the secondary sources (the indirect tradition) in parallel. This exploration is even more important in the case of ancient pharmacological treatises, because their authors synthesise information that has been passed down by their predecessors with their own knowledge base.

If we consider, for example, Galen's text amongst its various stratigraphic layers, we notice that the Scribonius cited by Galen was in effect the Scribonius that cited the sources of Galen's treatise, such as and in particular, Asclepiades

hoc eum descriptum esse aut ex eodem archetypo utrumque fluxisse mihi facile persuaserim ("with respect to the Paris manuscript 2173... I found that it coincides with the Venice 279 manuscript to the extent that I am convinced that it is either a copy of it or they both derive from the same model"). In addition to Helmreich's results, we must mention Wenkebach's reconstruction (1933: 168, n. 1), according to which the *Parisinus Graecus* 2173 was in Venice around 1525, the year in which Galen's *editio princeps* of Aldus appeared.

Pharmakion or Andromachus the Younger, in the last quarter of the first century of our era.²²

Therefore, by comparing §51–52 from Scribonius' *Book of Recipes* (*Compositiones*) and Galen's passage (*De comp. med. sec. loc.* 3.3) we can clearly see that it is not a matter of literal citation, but rather a rewriting. And the product of this process must—beyond a shadow of a doubt—coincide with secondary sources and be used as such—and therefore, with all of the caution that ensues—for the establishment of Scribonius' Latin text.

Bibliography

- Bourbon, F./Lo Presti, R. (eds.) (2011), *"De Fabrica artis medicinae". Les redéfinitions de la médecine à la Renaissance*, Toronto.
- Fabricius, C. (1972), *Galens Exzerpte aus älteren Pharmakologen*, Berlin/New York.
- Guardasole, A. (2011), "Janus Cornarius éditeur et commentateur du traité de Galien *Sur la composition des médicaments selon les lieux*," in: Bourbon/Lo Presti (eds.), 85–97.
- Helmreich, G. (1887), *Scribonii Largi Compositiones*, Leipzig.
- (1923), *Galenus De alimentorum facultatibus*, Leipzig/Berlin.
- Jacquart, D. (ed.), (1997), *Les voies de la science grecque. Études sur la transmission des textes de l'Antiquité au dix-neuvième siècle*, Geneva.
- Jouanna-Bouchet, J. (2000), *Scribonius Largus. Compositiones. Édition, traduction et commentaire*, Ph.D. thesis, Paris 4-Sorbonne, Paris.
- Jourdan, P. (1919), *Notes de critique verbale sur Scribonius Largus*, Paris.
- Mazzini, I./Fusco, F. (eds.) (1985), *I testi di medicina latini antichi. Problemi filologici e storici* (Atti del I convegno internazionale 'I testi di medicina latini antichi', Macerata—S. Severino M., 26–28 aprile 1984), Rome.
- Mondrain, B. (1997), "Éditer et traduire les médecins grecs au XVI^e siècle. L'exemple de Janus Cornarius," in: Jacquart (ed.), 391–417.
- Monfort, M.-L. (1998), *L'apport de Janus Cornarius (ca. 1500–1558) à l'édition et à la traduction de la "Collection hippocratique"*, Ph.D. Thesis, Paris 4-Sorbonne, Paris.
- Sconocchia, S. (1981), *Per una nuova edizione di Scribonio Largo. I nuovi apporti del codice Toletano*, Brescia.
- (1983), *Scribonii Largi Compositiones*, Leipzig.
- (1985), "Le fonti e la fortuna di Scribonio Largo," in: Mazzini/Fusco (eds.), 151–213.

22 Also see some of Fabricius' examples (1972: 192–198 and 222).

- (1993), “L’opera di Scribonio Largo e la letteratura medica latina del I sec. d.C.,”
in: *Aufstieg und Niedergang der Römischen Welt* 2.37.1, 843–922.
- Wenkebach, E. (1933), “Der hippokratische Arzt als das Ideal Galens. Neue Text-
gestaltung seiner Schrift ‘Ὅτι ὁ ἄριστος ἰατρός καὶ φιλόσοφος’, *Quellen und Studien zur
Geschichte der Naturwissenschaften und der Medizin* 3.4, 363–383.

Greek Medicine in Scribonius Largus' *Compositiones*

Sergio Sconocchia

Abstract

Roman scientific and technical literature, considered in all its genres and forms, is a continuation and development of Hellenistic literature, so it would be more proper to refer to science of the Graeco-Roman period. The introduction of Greek medicine to the Roman world is not free of tensions and disputes (witness Cato and Pliny). Scribonius' introductory *Letter* (*Epistula*), also called the *Professio medici* because of its substantial ethical content, including references to Hippocrates and Herophilus, is quite critical of a group of physicians who can be identified, through a rigorous analysis of some passages in Celsus and Scribonius, as the Methodists (*Methodici*). After some general reflections on Scribonius' "Greek-coloured" Latin, this paper offers some suggestions on the text and interpretation of particular passages: 21 *eiusdemque generis pigmentorum componuntur* ("and they are composed of the same type of drugs"); 99 *dicitur enim a quibusdam πικρά, quia amara est* ("in fact some call it πικρά, that is "acid," because it is bitter"); 104 *item lactucae, caules apio similis* ("also lettuces, a cabbage similar to celery"); 182 *gypso pota* ("having drunk of plaster"); 183 *<facit> uentris initio grauitatem, inflationem* ("initially it <causes> heaviness of the belly, flatulence") and 186 *qui sumpserunt autem eius* ("and those who partook of it").

It is a truth universally acknowledged that from its earliest beginnings (with varying degrees of originality, depending on the genre) Latin literature was based and modelled itself upon the literature of the Greeks. If this is the case as regards the "high" literature, it is even more true of the scientific and technical output, which is almost always a continuation and development of Hellenistic works, so that one may well speak of the science of the Graeco-Roman age, and

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indeed the writings on certain subjects could more appropriately be described as literature in Latin rather than as Roman literature.¹

The same applies to the relationship between Greek medicine and the medicine of the Roman age. The reception of the former was not always free from reservations and opposition: by way of example, we should recall the vehement disapproval of Cato (234–149 B.C. in his *Books for My Son Marcus* [*Libri ad Marcum filium*]) and later on of Pliny. Despite these hostile attitudes, by means of an inexorable historical process, Greek medicine gained a foothold in Rome and gradually became established.² The medical profession was not suited to all social classes, though (cf. Cic. *Off.* 1.151), and from what Pliny says, was thought demeaning for the “Roman strictness” (*Romana gravitas*).³ It was often perceived as being contrary to the Romans’ nationalist feelings, also because the physicians, who were mostly Greek, used Greek terminology in the practice of their art.⁴ From the second century B.C., then, the art of medicine in Rome was Greek in its doctrines, its language, its practitioners: suffice

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- 1 For some useful documentation, see Mastroianni/Zumbo (eds.)/Santini (dir.) (2002). Radici Colace (p. 120) remarks: “Come quasi tutti i generi letterari, anche la letteratura astrologica a Roma si riconosce in modelli di scrittura greci”; cf. also Urso (2002). A similar dependence on Greek forms and paradigms is confirmed by Santini (2002: 161–162) as regards “Astronomia”: “Il debito nei confronti della scienza greca sembra davvero notevole”; by Stok (2002) for “Etnografia”; Prontera (2002) for “Geografia”; Argoud (2002) for “Idraulica”; and Fleury (2002) for “Meccanica.”
 - 2 In a few bold pen strokes, Plin. *Nat.* 29.12–13, gives Cassius Hemina’s account of the arrival in Rome of the first Greek physician, Archagathus (*uulnerarium eum fuisse a re dictum*) and describes Cato’s vehement opposition to the Philhellenes (Plin. *Nat.* 29.7–8); he then gives vent to his own scorn (Plin. *Nat.* 29.18): *Discunt periculis nostris, et experimentis per mortes agunt: medicoque tantum hominem occidisse impunitas summa est* (“It is at the expense of our perils that they learn, and they experiment by putting us to death, a physician being the only person that can kill another with sovereign impunity”).
 - 3 Cf. Plin. *Nat.* 29.17: *Solam hanc artium Graecarum nondum exercet Romana gravitas; in tanto fructu paucissimi Quiritum attingere, et ipsi statim ad Graecos transfugae, . . . in hac artium sola euenit ut cuicumque medicum se professo statim credatur, cum sit periculum in nullo mendacio maius* (“Medicine is the only one of the arts of Greece that the Roman gravity has hitherto refused to cultivate: lucrative as it is, very few of our fellow-citizens have even attempted it, and as soon as they ever have done so, they have become deserters to the Greeks forthwith . . . this is the only one of the arts in which the moment a man declares himself to be an adept, he is at once believed, there being at the same time no imposture, the results of which are more fraught with peril”).
 - 4 Capitani (1975–1976); Mazzini (1978); De Meo (1983: 224–236). On medical Latin in general, see Langslow (2000).

it to mention Asclepiades, Themison of Laodicea, Dioscorides, Thessalus of Tralles, Archigenes, Soranus, and so many others who spent some or all of their professional careers in Rome.

In their translations and adaptations of a scientific and technical literature for the most part written in Greek, writers on medicine in the Latin language from Celsus to those of the fourth and fifth centuries produced a body of literature with its own strikingly significant linguistic and formal features. In the so-called “high” Latin literature, certain cultural and linguistic elements can be “obfuscated” by the tendency to “standardisation” often evident in the official written language of a work of art, whether in verse or prose. In the encyclopaedia genre, too, while the features of *Fachprosa* may be conserved, the language and style aspire to a simple and sober elegance. In the textbook, on the other hand, where the author’s aims are more practical, there is the tendency to include not just Graecisms, technical terms, and neologisms, but also positive diminutives and linguistic structures typical of the vernacular.

The “everyday” nature of technical languages such as the medical one, bordering on a special language but enlivened by colloquial expressions taken from *Umgangssprache*, provides us with concrete examples of a tongue that is neither Greek nor Latin, but often Graeco-Latin, or rather, as I like to call it, Latin-Greek, with a high level of integration. A perfect example of this is the language of Scribonius Largus, author in the Julio-Claudian age of the first pharmacological textbook in Latin.

Introduced to the Romans by an ever-increasing number of Greek physicians⁵ and often received with enthusiasm, the new Greek art of medicine offered treatments based on the search for the causes of disorders and made available to writers a wealth of knowledge on various subjects accumulated in the course of a long tradition: from anatomy to physiology, from pathology to dietetics, from pharmacology to surgery; it also had an important body of literature behind it and the added allure of a sophisticated rhetorical tradition. It had no trouble in sweeping aside the old indigenous medicine, the only truly Roman one, which continued to survive mainly in the countryside.⁶ In the works of Celsus, Scribonius, and Pliny, however, we still catch the occasional glimpse of the legacy of the old traditional medicine based on folk remedies and charms, which found its greatest expression in Cato, resurfaced in

5 Mudry (1990: 135–137).

6 See Scarborough (1969: 23; 180 and n. 69–71); Capitani (1972); Mudry (1990); King (2001); King/Dasen (2008).

Pliny, and proved resilient even after the emergence of a true *medical art* (*ars medica*) founded upon a rich store of Greek learning.⁷

But let us return to the beginnings of Greek medicine in Rome. Some authors such as Asclepiades and Themison actually founded their own schools. It seems that Asclepiades⁸ laid the basis for the Methodist movement, while Themison actually codified the *method* (in other words, the “path” [*uia*]: cf. Cels. *Prooem.* 54–57, *infra*). According to Themison, the “tone” of living beings changes when disruption occurs to the normal circulation of “atoms” through the body’s pores (πόροι), causing the body to be too loose (ρόωδία) or too bound (στέγνωσις);⁹ these contractions and distensions can vary from one organ to another and regulate the organ’s functions: the cause of diseases is an imbalance in this “tonic quality” which can take two different forms: either too much “tonicity” and “excessive constriction” (Gr. στέγνωσις, Lat. *strictum*), or too little “tonicity” producing excessive looseness (Gr. ροωδία, Lat. *laxum*). The third kind of disease, the *mixtus*, is a combination of these two states. Themison thought many nervous illnesses could be attributed to the *status strictus*, while humoral disorders and heart complaints (such as choler, haemorrhoids, and haemorrhages) were caused by *laxus*, and inflammations in general (pleurisy and so on) by the *status mixtus*.¹⁰

7 Cf. Capitani (1972). Cato (for example *ad fil. frg.* 1 = Plin. *Nat.* 29.14) and Pliny (*Nat.* 29.6) took an empirical approach based on a much flimsier doctrinal framework than that of Greek scientific methodology (Pliny, especially, writes primarily for the common man—see *Nat. Praef.* 6): as seen above, they both harshly condemned the new Greek science of medicine.

8 On Asclepiades see Mazzini (1997: vol. 1, 35–37; vol. 2, 200–205 for the Methodists); Sconocchia (2002: 321–325; 326–327 for the Methodists); Cavalli (2010). Strictly speaking, Asclepiades was not a Methodist himself, but thanks to Themison, most of his teachings became part of the legacy of the Methodist school (Mazzini 1997: vol. 1, 37); in fact, he is considered to be the real inspiration behind the Methodists (Mazzini [1997: vol. 2, 201]; Sconocchia [2002: 321]; cf. Scrib. Larg. *Praef.* 7–9).

9 Cf. Gal. *De sectis* 6–9 (1.79–105 K. = 12–32 Helmreich = Fr. 203, pp. 538–563 Tecuşan).

10 On Themison see Moog (1994); Mazzini (1997: vol. 1, 37–38); Sconocchia (2002: 327); and Fiorucci (2010). In fact, the Methodists called into question certain basic methods and principles of Hippocratic medicine: clinical observation, the theory of humors, the ideas of “therapeutic nature” and innate heat, the unity of the human body, the relationship between organs and their functions, the evaluation, for diagnostic and therapeutic purposes, of external elements, such as time and place, the kinds of air and water, “diet” seen as a “way of life,” and so on; it should be pointed out that with the Methodists, the traditional medicaments themselves are generally either unknown or prohibited, especially among Themison and his followers: see *infra* the references in Celsus and Scribonius.

I shall now examine the work of Scribonius in order to throw light on certain features of Methodist doctrine. Let us begin with the *Praefatio*.¹¹ Some years ago, in response to the following comment by Ph. Mudry:¹² “De même, la préface du traité de Scribonius Largus sur les recettes médicales *Compositiones* fournit sur Asclépiade des informations dont on ne semble pas avoir fait grand cas jusqu’à maintenant,” I had occasion to say:¹³ “Ce sont surtout les méthodiques, par ailleurs non définis comme tels, comme je l’ai déjà souligné, que vise la polémique de Scribonius. D’autre part, Celse, dans sa *Préface*, porte également un jugement sévère à l’égard des mêmes méthodiques, tout comme Galien dans son traité *De sectis*.”

In fact, it is my belief that the doctors whom Scribonius criticises so vehemently in the *Praefatio*—by no coincidence defined by him as “the medical profession” (*Professio medici*)—are none other than the Methodists. Let us take a look in particular at *Praef.* 7–9: Scribonius has just been putting forward a series of heartfelt arguments in defence of “medicine” (*medicina*) and “remedies” (*medicamenta*), reminding his readers of how Herophilus defined the latter as *dium manus* (θεῶν χεῖρας, “hands of the gods”: cf. *Praef.* 1); then, in *Praef.* 7, he proceeds to rebut the arguments of those who would like to see medicaments banned and use the teachings of Asclepiades as justification for this:

At Asclepiades, maximus auctor medicinae, negavit aegris danda medicamenta: quidam enim hoc mendacio etiam pro argumento utuntur.

But Asclepiades, the greatest authority on medicine, said that medicaments should not be administered to patients: there are those who even make use of this lie as an argument.

Scribonius retorts that in response to arguments like these, it could be said:

Viderit Asclepiades, quid senserit: forsan non omnino in hanc partem animum intendit: homo fuit, parum feliciter se in hoc negotio gessit. Non deterreor persona.

It is Asclepiades’ problem what he meant with these words in this statement; perhaps he did not intend it to apply precisely to this aspect of the

¹¹ See Sconocchia (2000).

¹² Mudry (1983: 517).

¹³ Sconocchia (1991: 145).

discipline. After all, he was only human; he did not apply himself fully to this particular problem. His great authority does not inspire me with fear.

Besides, our author continues, Asclepiades himself made great use of medicaments (*Praef.* 8).

After speaking out in *Praef.* 7 against the ban on medicaments:

Sed ista licentia nomine tantummodo propter quorundam negligentiam latius processit.

But this abuse caught on in name only because of the negligence of certain individuals.

He now goes on to defend the correct procedure, for example in “weights and measures” (*pondera et mensurae*), and he reaffirms his own professionalism (*Praef.* 11):

Nos uero ab initio rectam uiam secuti.

In truth, we have followed the right path from the beginning.

Obviously, *rectam uiam secuti* presupposes an “wrong path” (*non recta uia*), and the latter is the path (μέθοδος) followed by the Methodists.

The term *uia* has a precise meaning in Celsus, who, in the well-known passage in *Prooem.* 54–57 (Marx p. 26), clearly attributes the beginning of this new “way” to Themison:

Nam et Erasistratus non ex illis causis fieri morbos dixit, quoniam et alii et idem alias post istas non febricitarent; et quidam medici saeculi nostri sub auctore, ut ipsi uideri uolunt, Themisone, contendunt nullius causae notitiam quicquam ad curationes pertinere; satisque esse quaedam communia morborum intueri (*Prooem.* 54).

For Erasistratus himself has affirmed that diseases were not produced by such causes, since other persons, and even the same person at different times, were not rendered feverish by them; and certain practitioners of our time, following, as they would have it appear, the authority of Themison, contend that there is no cause whatever the knowledge of which has any bearing on treatment. They hold that it is sufficient to observe certain general characteristics of diseases.

Celsus sees Themison as the initiator of this new “path” (*uia*):

Horum obseruationem medicinam esse; quam ita finiunt, ut quasi uiam quandam quam μέθοδον nominant, eorumque, quae in morbis communia sunt, contemplatricem esse contendant (*Prooem.* 57).

They hold that the art of medicine consists of such observations, which they define as a sort of way, which they name μέθοδος, and maintain that medicine should examine those characteristics which diseases have in common.¹⁴

Scribonius objects most vigorously to these new developments (*Praef.* 1–12) in particular in *Praef.* 3:

Cur ergo aliqui excludant medicinam ex usu medicamentorum non inuenio, nisi ut detegant imprudentiam suam.

I cannot understand why there are some who exclude the use of medications from medical practice, unless it is to show their incompetence.

And he goes on to say in *Praef.* 3–4:

Siue enim nullum experimentum eius generis remediorum habent, merito accusandi sunt—uerum aequaliter omnibus implorantibus.

If they have had no experience of this kind of remedy, they deserve to be accused—actually in equal measure to those who ask them for help.

See also 84 for criticism of fellow-physicians not well-versed in the principles of their art—whom I believe to be the Methodists—, where after a long tirade, we read:

14 The concept of “common causes” (*quaedam communia*), typical of Themison and the Methodists, is reasserted, but there is also an implicit belittling of medicines, with the rejection of any relationship between *causa* and *curatio* in favour of identifying the “common” elements of diseases, the famous “common causes”: in practice, medicines are often replaced by the equally famous therapies (wine, hot baths,—cold ones in the case of Asclepiades, ψυχρολόουσις—diet in the broader sense, and so on).

Et o bone deus, hi sunt ipsi, qui imputant suam culpam in medicamentis quasi nihil proficientibus.

And these are the same people, by God, who blame their own faults on medicaments, almost as if these did no good at all.

But let us return to Celsus. In the passage quoted from the *Prooemium* there are other elements in common with Scribonius worthy of note: 55 (Marx, p. 26) provides precious information about Themison and Methodist teaching:

Siquidem horum tria genera esse, unum adstrictum, alterum fluens, tertium mixtum—et modo increescere, modo consistere, modo minui.

That of these there are three classes, one a constriction, another a flux, the third a mixture—at times on the increase, at times constant, at times diminishing.

Prooem. 56 (Marx p. 26) contains details about the therapy. In 57 (Marx p. 26), with the passage on μέθοδος already mentioned above, we then find:

Horum obseruationem medicinam esse—quod parum artis esse in obseruatione experimentorum credunt.

They hold that the art of medicine consists of such observations—they think that in the observation of experience there is little of the art of medicine.

Celsus' discussion of the Methodists concludes with *Prooem.* 58–75 (Marx pp. 26–29), and 62–75 in particular: see, for example, 65 (Marx pp. 27–28):

Et exterae gentes, cum suptilem medicinae rationem non nouerint, communia tantum uident; et qui ampla uoletudinaria nutriunt, quia singulis summa cura consulere non sustinent, ad communia ista confugiunt. Neque Hercules istud antiqui medici nescierunt, sed his contenti non fuerunt. Ergo etiam uetustissimus auctor Hippocrates dixit mederi oportere et communia <et> propria intuentem.

So also do foreigners, as they are ignorant of reasoning subtleties, look rather to common characteristics of diseases; again, those who take charge of large hospitals, because they cannot pay full attention to

individuals, resort to these common characteristics. Nor, by Hercules, were the ancients unaware of all this, but they were not content therewith; therefore, even the oldest authority, Hippocrates, said that in healing it was necessary to take note both of common and of particular characteristics.

It should come as no surprise that it was Thessalus of Tralles, the well-known exponent of the Methodists (as Pliny tells us in *Nat.* 29.9), who proclaimed himself “iatronikes,” or “conqueror of physicians,” for which he was harshly criticised by Galen, among others.¹⁵ In my opinion, the polemic of Scribonius is aimed precisely at these more “extremist” positions on the part of the Methodists: it may well be that his *Epistula-Praefatio* is directly aimed at *Epistulae*-treatises such as Thessalus’ *On Plants* (*De plantis*), which exalts the new sect and its new learning, seen as the only true one as opposed to the useless and ineffective treatments of the old physicians.

While distant from the positions of Cato and Pliny, Scribonius is undeniably close to Celsus, both as regards their moralising conception of the “art” (*ars*) and their doctrinal grounds, and as regards their definition of medical practice and effective treatments. For Celsus, medicine is fundamental (cf. *Prooem.* 1, Marx p. 17); for Scribonius, it is medicines which are irreplaceable (cf. *Praef.* 1–10). Both agree that the physician must be endowed with humanity and moral qualities;¹⁶ he must be well-disposed and friendly to his patients;¹⁷ he must not be avaricious;¹⁸ and he must be cautious when giving an opinion. In order to define how Celsus and Scribonius conceptualise the medical τέχνη, we must bear in mind the diatribe existing between medical schools in the first century A.D., especially the one between the Empiricists and the Dogmatists.¹⁹ For both authors, medicine is based on experience, although Celsus tends to place more emphasis upon the art of conjecture (*Prooem.* 47, Marx p. 25; 74, Marx p. 29). Another unifying element is their vigorous affirmation of the unity of medicine in its three constituent parts (dietetics, pharmacology,

15 Cf. Gal. *De meth. med.* 1.2 (10.7–8 K. = Fr. 156, p. 404–407 Tecuşan). Citing the beginning of a letter from Thessalus to Nero, Galen accuses him of incompetence and lack of scruples; as Galen says at *De comp. med. per gen.* 1.4 (13.393 K.), Thessalus has no idea what medicine is about. Thessalus claims to be able to make anyone into a physician in six months, no matter what their former job might have been: Gal. *De meth. med.* 1.1 (10.4–5 K. = Fr. 155, pp. 404–405 Tecuşan).

16 Deichgräber (1950); Römer (1987).

17 Cfr. Mudry (1980); Mudry (1997); Sconocchia (2000: 329–341 and *Appendici* I and II, 350–357); with regard to Mudry (1997).

18 Cf. Cels. 3.4.9–10 (Marx p. 106); Scrib. Larg. e.g. 22; 38; 199; Plin. *Nat.* 34.108.

19 Mudry (1985); Capitani (1991).

and surgery), inherited from Alexandrian civilisation: none of the three can be eliminated without sacrificing the whole.²⁰ This affirmation is identical in both Celsus and Scribonius, and very clearly formulated: it is based on an encyclopaedic ideal of the unity of knowledge which had its origins in Alexandria, but was typically Roman. In Rome, Cicero (*De orat.* 3.13) had made it the basis of his “education” (παίδεια).²¹

A strong empirical bent is apparent in the *Book of Recipes* (*Compositiones*), where there is a pronounced emphasis on the personal verification of remedies. In his referring to the tradition of Herophilus and before that of Hippocrates, the points of contact between Scribonius, a culturally engaged writer, and the legacy of the great medical school of Alexandria are evident. As an example of *Epistula*-treatise, the *Compositiones* belong to a literary genre whose models can be found in Greek literature (cf. the letters of Epicurus) as well as in various Latin works.²²

I have written numerous works about the tradition of Scribonius.²³ His influence in late antiquity and the Medieval periods was evident principally in a specific literary genre which emerged, called *Antidotaria* (“collection of antidotes against the plague, and other malignant diseases”).²⁴ Through these, it is possible to reconstruct very early phases of the original text of the *Compositiones*, and they often provide unequivocal confirmation of specific points in the original text, at times giving certainty to conjecture. Scribonius is quoted by physicians everywhere and from every age, from late antiquity

20 Mudry (1985; 1982: 68 and *passim*).

21 Sconocchia (1993: 860–861).

22 On the authenticity of the *Index* and on single entries, see Sconocchia (1981: 55–60; 1987). For the structure of the work, the *Praefatio*, the *Index* and the body of the text, and for a model of the correspondences between the *Index* and the text that stretches from Valerius Soranus to Pliny and Scribonius, and to a long subsequent tradition, see Sconocchia (1987). For the polemic in Scribonius—and also in the *Praefatio*—against adulterated medicines, already present in Celsus (Book 5 and *passim*) and very much felt by Pliny (André [1987: 82–83]), and for the defence of medicine, cf. Sconocchia (1993: 869–876).

23 On the Toledo manuscript 98.12 see Sconocchia (1976); Sconocchia (1981: 11–30). On the tradition, see also the *Praefatio* to the edition in Sconocchia (1983: IX–XVII) and for the indirect tradition, Sconocchia (1988a: 45–51) and Sconocchia (1993: 878–885).

24 See Mazzini (1983). See Sconocchia (1995) for the prescriptions discovered in the manuscript of the Biblioteca Ambrosiana M 19 sup., twelfth or thirteenth century, and manuscript 69 of the Archive of the Badia di Montecassino, ninth century, in Beneventan minuscule for important *excerpta* written at Montecassino but apparently going back to *Viuarium*. See also recent writings by Fischer (2010); Sconocchia (2010); Fischer/Sconocchia (2008 [2009]).

to the Middle Ages and Renaissance until the Modern Age.²⁵ See Galen and, above all, Marcellus the Empiricist.²⁶

Let us now take a look at the language. The Ruel (or de la Ruelle, Lat. Ruellius) edition, with its frequent normalisations and classicisms, prevented later editors and scholars from becoming aware of certain important features which give Scribonius a well-earned place among the most interesting writers of Latin-Greek literature (in other words, literature which is in Latin but strongly dependent upon and shaped by Greek sources and rich in Graecisms and neologisms, technical words and expressions, vernacularisms, features which lend support to the hypothesis that Scribonius might have been a native speaker of Greek, perhaps from Sicily). Subsequent to the discovery and examination of the Toledo manuscript, the true significance of certain features of the language and style of Scribonius finally became apparent and important progress could be made.²⁷ In the following section, I shall attempt to give some examples of what emerged from the text, discoveries made possible by the *nuovi excerpta* identified by Fischer and studied by Fischer/Sconocchia.²⁸

1) 21 *eiusdemque generis pigmentorum componuntur* (“and they are composed of the same type of drugs”).

Here the tradition of the text is as follows: *pigmentis Ruell.*, *pigmentorum T.*, *pigmentorum PL* sed *pigmentis Marcell.* (in appar. legimus: “*pigmentis Scrib. structuram codicum parum iis, quae congessit Loefstedt ad Peregr. Aether. p. 293, defendi iudicat Ni, recte, ut opinor*” [Liechtenhan]). If the reading of *Ruell.* were correct, *pigmentorum* represents an error common to *TMarcell.* 8.2, which can be explained only as an error going back to the archetype: Ruel has

25 Cf. Sconocchia (1985: 206–213).

26 For Galen, see Sconocchia (1985: 206–208); for indirect knowledge of Scribonius, through intermediary sources, see Fabricius (1972). For the question of relations between Scribonius and *Marcellus Burdigalensis*, the main witness of an indirect tradition, see Sconocchia (1985: 208–210). More recently, see the extremely innovative article by Fischer (2010). The success of Scribonius can also be traced through other authors: for *Medicina Plinii*, cf. Sconocchia (1985: 210–211); for the so-called *Physica Plinii Bambergensis*, cf. Sconocchia (1985: 210–211).

27 For an early contribution, see Sconocchia (1981: 61–87). This study brings to light some interesting phenomena, such as, in 202–221, a series of cases of *emplastrum* neuter in a chapter heading or introduction followed by a feminine pronoun or adjective, vernacularisms, and so on. For a closer investigation, see Sconocchia (1993: 884–922), which looks into Graecisms, first appearances, positive diminutives, vernacularisms, *Rezeptnominativ*, and *Rezeptakkusativ*. For an examination of the nominative and accusative absolute, see Sconocchia (1988b).

28 Fischer/Sconocchia (2008 [2009]).

emended the text; but *pigmentorum* is much more likely to be the authentic reading; in other words, a “slip” made by Scribonius himself. Here too, we may have a clue to a possible translation from the Greek: after having started out in good Latin with *ex cadmia aut aere usto*, Scribonius “absentmindedly” follows the genitive, governed by the ἐκ of the Greek original, which he is very familiar with, being an expert in Greek (perhaps the Sicilian strain). Similar phenomena are also present, as I have written and as is well-known, in the occurrences of *emplastrum* (202–221) here declined in the feminine, from ἡ ἐμπλαστρος (or ἐμπλαστος), which is feminine in Greek.

2) 99 *dicitur enim a quibusdam πικρά, quia amara est* (“in fact some call it πικρά, that is “acrid,” because it is bitter”).

The term πικρά in Scribonius is a *hapax legomenon*. For *amarus* see 5; 83; 99. In Celsus, *piger* is attested in 3.2.3 (Marx p. 102), but not *picer* (although the etymology is the same). In Pliny *picris*, “bitter lettuce” is attested in *Nat.* 21.105 and 22.66 (for *lactuca genera* see 19.125–126). The fact that it was written in Greek letters is important. Probably, in the archetype (or in the texts that our scribes copied from) the use of Greek characters for Greek words was more frequent than might be thought; therefore, not all the transcriptions we find in *Ruell.*, but do not find in T and in *Marcell.*, are the result of intervention on the part of *Ruell.* (whose manuscript, also for these reasons, is definitely not T, as we tended to think [cf. Sconocchia (1981: 85–87)]). As a result, in the forthcoming edition, we will try to restore various occurrences of Greek letters in *Ruell.* when it seems reasonable to do so.

3) 104 *item lactuca, caules apio similis* (“also lettuces, a cabbage similar to parsley”).

This passage is controversial, but E. Cecchini’s suggestion seems the most acceptable. *Caules apio similis* should be singular: in Teubner’s edition, in fact, it is followed by *ex posca decoctus*.

In the Toledo manuscript, we read *ad plosilas* (ut uidetur, uel -is); in *Marcell. Med.* 20.9 we read *aplosiles* (*apposiles* Heraeus);²⁹ *Ruell.* reads *cum foliis*,

29 In the *Index uerborum* of Niedermann/Liechtenhan’s edition of *De medicamentis liber* (1968: 657), under the heading *aplosilis* (*caules*) we read: “328.14 (apposiles a uerbo applodere Heraeus, qui confert germ. Klatschrose, Klatschmohn.” This is incorrect. For his part, André (1956: 78) has doubts: cf. under the entry. *caulis*: “c. haplosilis, *Marcell. med.* 20.9 (?)” André, *ibid.*, writes: “(3) spécialement: tige du Chou (*brassicae colis*, Colum. 6.6.1), d’où Chou; dep. Cic. et Varron, remplace *brassica* à partir du 1^{er} s. p. C.” In Cels. 2.18.3 (Marx p. 89) *caulis* occurs twice; in Cels. 2.27 (Marx p. 95) we find: *Refrigerant holera, quorum crudi caules adsumuntur, ut intubus et lactuca* (“Cooling foods are: pot-herbs the stalks of

which looks like an obvious attempt at adjustment on his part; in C, the reading is missing. In Ca we read *ampliores*, whereas in Sang. 751 we find (*caulos*) *amplos*. The original reading must therefore have been *apio similis*, that is, *selinas* or *σελινοειδής*. *APIOSIMILIS* in majuscule script could have given rise to two erroneous readings: the first one, *APLOSIMILIS* was transformed, possibly by the intervention of an erudite reader, into *APLOSIMTLIS*, which is what we find in Marcellus; at the same time, somebody might have erroneously read *AMPLOS*[*IMILES*], with subsequent omission of the last part, producing *amplos*, as in Sang. 751, or, by further confusion, *ampliores*, as in Ca.³⁰

In Cato for the *brassica crispa* or *apiaca* 157.1–2 see:

De brassica Pythagorea, quid in ea boni sit salubritatisque. Principium te cognoscere oportet quae brassicae sint et cuius modi naturam habent Nunc, uti cognoscas naturam earum, prima est levis quae nominatur: ea est grandis, latis foliis, caule magno, ualidam habet naturam et uim magnam habet; 2. Altera est crispa, apiaca uocatur, haec est natura et aspectu bona, ad curationem ualidior est quam quae supra scripta est; et item est tertia, quae lenis uocatur, minutis caulibus, tenera et acerrima omnium est istarum, tenui suco uehementissima; et primum scito de omnibus brassicis nulla est illius modi medicamento.

Of Pythagoras' cabbage, what virtue and health-giving qualities it has. The several varieties of cabbage and the qualities of each should first be known. . . . To give, then, the several varieties so that you may know their nature, the first is the so-called "smooth": it is large, with broad leaves and thick stem; it is hardy and has great potency; 2. The second is the "curly" variety, called "apiaca"; it has a good nature and appearance, and has stronger medicinal properties than the above-mentioned variety; so also has the third, the "mild," with small stalk, tender and the most pungent of all, its juice, though scanty, has the most powerful effect. No other cabbage approaches it in medicinal value.

Despite being to some extent less effective than the third type (*lenis*), the *brassica apiaca* is *ad curationem ualidior* than the first type and useful for various therapies.

which are eaten uncooked, such as endive and lettuce" [Trad. W.G. Spencer]], here too, it would seem, meaning "bulb."

30 The same processes of corruption occur in miniscule script as well.

Pliny, on the other hand, has this to say about the *brassica* (*Nat.* 20.78–80):

Brassicae laudes longum est exsequi, cum et Chrysippus medicus priuatim uolumen ei dicauerit per singula membra hominis digestum, et Dieuches, ante omnes autem Pythagoras, et Cato non parcius celebrauerit, cuius sententiam uel eo diligentius persequi par est, ut noscatur qua medicina usus sit annis DC <populus Romanus>. In tres species diuiserunt eam Graeci antiquissimi: crispam, quam selinada uocauerunt a similitudine apii foliorum, stomacho utilem, aluum modice mollientem; alteram leuem, latis foliis e caule exeuntibus, unde caulodem quidam uocauere, nullius in medicina momenti. Tertia est proprie appellata crambe, tenuioribus foliis et simplicibus densissimisque, amarior sed efficacissima. Cato crispam maxime probat, dein leuem grandioribus foliis, caule magno.

It would be too lengthy a task to enumerate all the praises of the cabbage, more particularly as the physician Chrysippus has devoted a whole volume to the subject, in which its virtues are described in reference to each individual part of the human body, and Dieuches has done the same, and Pythagoras too, in particular, and Cato has not been more sparing in its praises than the others; and it will be only right to examine the opinion he expresses in relation to it, if for no other purpose than to learn what medicines the <Roman people> made use of for six hundred years. The most ancient Greek writers have distinguished three varieties of cabbage: the curly cabbage, to which they gave the name “selinás” from the resemblance of its leaf to parsley, beneficial to the stomach, and moderately relaxing to the bowels; the “helia,” with broad leaves running out from the stalk—a circumstance owing to which some have called it “broad-stalked,” of no use whatever from a medicinal point of view. The third species has been given the name “crambe,” with thinner leaves of simple form, and closely packed, more bitter than the others but very efficacious in medicine. Cato esteems the curly cabbage the most highly of all, the “curly” one, and next to it the smooth cabbage with large leaves and a thick stalk.

In both Cato and Pliny, then, the *selinas* (cf. in Thphr. *HP* 3.12.5, σελινοειδής) is singled out as being the best cabbage for medicinal purposes. In fact, Pliny describes it being “beneficial to the stomach” (*stomacho utilem*), “moderately relaxing for the bowels” (*aluum modice mollientem*); Scribonius recommends “a cabbage similar to celery boiled in an acidulous drink of vinegar and water”

(*caules apio similis ex posca decoctus*) for gastric disorders and stomach upsets, so there is a correspondence in the uses of the *brassica selinas* or *selinoeides* and the one described by Scribonius, through the creation of an obvious calque *apio similis*, in other words, *cum apii figura*. Scribonius probably uses *caulis* because it is the vernacular term. *Decoctus* in T is the correct reading which confirms the preceding *caules apio similis* as singular; *decoctos* in Ca is the subsequent corruption of *Casinensis*, just as *ex posca coctos* represents a corrupt reading of Sang. 751; *decocti* in both *Ruell.* and *Marcell.* probably represents the misunderstanding on the part of *Ruell.* and *Marcell.* who, like the aforementioned attestations, take *caules* as being plural. In this case, then, Scribonius used a calque with a vernacularism. According to Dsc. 2.165, the cabbage must be “boiled” (*decoctus*) because that way it is more nourishing.

consentientes caput (“While [the patients] feel [this extreme pain] in their heads too”)

In place of *consentiente capite*, a reading common to *TRuell. Marcell.PCaC*, with an ablative absolute, I now prefer the text of Sang. 751, with a Greek-style accusative, a structure which is rarer and therefore more difficult to explain away as a correction on the part of a copyist of Sang.: the other manuscripts may have simplified independently.

4) 182 *gypso pota* (“having drunk of plaster”)

The description of poisonous substances from the animal, vegetable and mineral worlds starts at c. 179 (179–199).³¹ I still wonder, notwithstanding the established text, if it would not be preferable to accept the reading of T, *gypsus pota*, with *gypsus* of feminine gender like the Greek ἡ γυψός, accepting another case of nominative absolute. In *Vindoc.* 109 we find *compositio contra gypsum potum*. In the first edition, I quoted Sconocchia (1981: cit. 73 n. 81). Here, I should point out that in the other cases (46 and 132), we have respectively *gypso* (ablative singular) *T Ruell.Marcell.* and *gypsum* (nominative singular neutral *TRuell.*). I am convinced that, if we are thinking in terms of a

31 For this group of *Compositiones*, see Sconocchia (1985: 161–189; cf. the Table on pp. 166–167). For Nicander, the comparison had already been made, though within certain limits, by, among others, Schonack (1912; 1913). It does not seem possible to claim that Scribonius derived directly from Nicander. It has never been claimed explicitly by the present author, cf. Sconocchia (1985: 174; 188). J. Jouanna Bouchet (2000: 558–635), has shown that Nicander is not a direct source for Scribonius. In the edition being prepared for the *Corpus Medicorum Latinorum*, I am carrying out a complete reexamination of the material, with a full commentary.

Greek source (cf. Nicander and Dioscorides and hence their possible Greek sources), we cannot exclude *gypsus* feminine (a Graecism) as another example of a nominative absolute. The present Graecism, with a nominative absolute, would confirm the high degree of familiarity that Scribonius had with Greek. As in the case of *emplastrum* feminine, the author, who is probably Sicilian writes in a language which I have described as Latin-Greek. In c. 46, the ablative *gypso* is declined regularly: in 132, *proderit his et sinapi siccum et gypsum aqua conspersum* ("For them dry mustard will be useful . . . and gypsum sprinkled with water"), Scribonius uses the regular Latin neuter form *gypsum*.

5) 183 <*facit*> *uentris initio grauitatem, inflationem* ("initially it <causes> heaviness of the belly, flatulence")

Since we find *uentris initio grauitatem* also in T, it would seem that *initio*, in contrast to the subsequent *postea*, is to be accepted, even if the hyperbaton might seem unnecessary; cf. in general Langslow (2000: 253–254). See also 24 *facit hoc per se etiam initio* ("this works also by itself at the beginning of the condition"). As for *inflationem*, corrected by Sconocchia from *inflatio-num* in Vindoc. 109,³² it had already been proposed by Rhodius (1655: 271), based on this sentence from Nicander, *Alex.* 595–596 ἀμφὶ δὲ μέσσον / πνεύματ' ἀνειλίσσοντα κατ' ὀμφάλιον βρομέησιν ("wind circulates and rumbles about the mid navel" [trans. Gow/Scholfield]), and so on. Rhodius also points out that none of the authors who treat the effects of *spuma argentea* ("litharge"), mention *inflammatio* ("inflammation"), while the intestines *inflantur*, also because of the "aconite" 188 (*inflantur intestina et uenti plurimum mittunt qui biberunt* ["the bowels become inflated and the persons who have ingested it suffer from extreme flatulence"]; cf. Nic. *Alex.* 25–26).³³

6) 186 *Qui sumpserunt autem eius* ("and those who partook of it"). The text of Vindoc. 109, *aliquid eius*, seems fairly satisfactory: cf. at lines 16–17 *bina ternaque coclearia eius sumpserunt* ("have taken two or three spoonfuls of it"). The genitive of the pronoun which follows is attested fairly frequently in Latin: cf. *aliquid horum* ("any amount of these substances") (Cato *Agr.* 33); *aliquid eorum* ("any amount of these substances") (Liu. 24.8.15); *aliquid alicuius* ("any amount of something") (Cic. *inu.* 2.8); in Petronius 100.1 we find *aliquid sumere* ("partake of something"). We need to weigh up whether this reading

32 Cf. Fischer/Sconocchia (2008 [2009]: 286).

33 For *aqua mulsa acris>s>que <clysmi> curatione<m>* ("[They are helped, after being made to vomit] with honey-water and application of a sharp enema"), see Fischer/Sconocchia (2008 [2009]: 301–302).

is acceptable or whether it should be considered an over-simplification in the transmitted reading.

The reading of T itself seems to be the best one: it could be a partitive genitive, as Guy Serbat suggested in the course of a conversation during the 1985 Pliny Convention in Nantes. In fact, if only a part of a whole is meant (in other words, it is a partitive), λαμβάνω (cf. Lat. *sumo*, “taste, take”) takes the genitive, just like γεύομαι (“taste”): once again, this could be yet another example of the use of a Graecism, recurrent in Scribonius.

Bibliography

- André, J. (1956), *Lexique des termes de botanique en latin*, Paris.
- (1987), *Être médecin à Rome*, Paris.
- Argoud, G. (2002): “Idraulica,” in: Mastroianni/Zumbo (eds.)/Santini (dir.), 247–261.
- Capitani, U. (1972), “Celso, Scribonio Largo, Plinio il Vecchio e il loro atteggiamento nei confronti della medicina popolare,” *Maia* 24, 120–140.
- (1975–1976), “A.C. Celso e la terminologia tecnica greca,” *Annali della Scuola Normale Superiore di Pisa* 5, 449–518.
- (1991), “I Sesti e la medicina,” in: Mudry/Pigeaud (eds.), Geneva, 95–123.
- Cavalli, F. (2010), “Asclepiade,” in: Radici Colace/Medaglia/Rossetti/Sconocchia (eds.)/Radici Colace (dir.), 198.
- Deichgräber, K. (1950), “*Professio medici*. Zum Vorwort des Scribonius Largus,” *Abhandlungen der Akademie der Geistes- und Sozialwissenschaftlichen Klasse* 9, 854–879.
- De Meo, C. (1983), *Lingue tecniche del latino*, Bologna.
- Fabricius, C. (1972), *Galens Exzerpte aus älteren Pharmakologen*, Berlin/New York.
- Fiorucci, F. (2010), “Temisone di Laodicea,” in: Radici Colace/Medaglia/Rossetti/Sconocchia (eds.)/Radici Colace (dir.), 968–969.
- Fischer, K.-D. (2010), “Die Antidotos des Zopyros und andere Fundstücke zu Scribonius Largus,” in: Langslow/Maire (eds.), 147–159.
- /Sconocchia, S. (2008 [2009]), “Nuovi *excerpta* scriboniani tra Tardo antico e Medioevo,” *Rivista di filologia e di istruzione classica* 136.3, 267–311.
- Flashar, H./Jouanna, J. (eds.) (1997), *Médecine et morale dans l'Antiquité. Dix exposés suivis de discussions*, Vandœuvres.
- Fleury, Ph. (2002), “Meccanica,” in: Mastroianni/Zumbo (eds.)/Santini (dir.), 263–273.
- Jouanna Bouchet, J. (2000), *Scribonius Largus. Compositiones*. Édition critique avec introduction, traduction et commentaire, Ph.D. thesis, Paris.
- King, H. (2001), *Greek and Roman Medicine*, London.
- /Dasen, V. (2008), *La médecine dans l'Antiquité grecque et romaine*, Lausanne.
- Langslow, D.R. (2000), *Medical Latin in the Roman Empire*, Oxford.

- /Maire, B. (eds.) (2010), *Body, Disease and Treatment in a Changing World: Latin Texts and Contexts in Ancient and Medieval Medicine* (Proceedings of the Ninth international Conference on Ancient Latin Medical Texts, Hulme Hall, University of Manchester, 5–8 September 2007), Lausanne.
- Lasserre F./Mudry, Ph. (eds.) (1983), *Formes de pensée dans la "Collection hippocratique"* (Actes du 4^e colloque international hippocratique, Lausanne, 21–26 septembre 1981), Geneva.
- Mastrorosa, I./Zumbo, A. (eds.)/Santini, C. (dir.) (2002), *Letteratura scientifica e tecnica di Grecia e Roma*, Rome.
- Mazzini, I. (1978), "Il greco nella lingua tecnica medica latina. Spunti per un'indagine sociolinguistica," *Annali della Facoltà di Lettere e Filosofia, Università di Macerata* 11, 541–556.
- (1983), "Due testimonianze inedite di Scribonio Largo fra tardo antico e alto medioevo," *Rivista di filologia e di istruzione classica* 111, 158–170.
- (1997), *La medicina dei Greci e dei Romani*, 2 vol., Rome.
- /Fusco, F. (eds.) (1985), *I testi di medicina latini antichi. Problemi filologici e storici* (Atti del I convegno internazionale 'I testi di medicina latini antichi', Macerata—S. Severino M., 26–28 aprile 1984), Rome.
- Moog, F.P. (1994), *Die Fragmente des Themison von Laodikea*, Diss. Med., Giessen.
- Mudry, Ph. (1980), "*Medicus amicus*. Un trait romain dans la médecine antique," *Gesnerus* 37, 17–20 (= Mudry [2006], 479–482).
- (1982), *La préface du "De medicina" de Celse*. Texte, traduction et commentaire, Rome.
- (1983), "*Épigones et novateurs. Les séductions de la pensée médicale posthippocratique*," in: Lasserre/Mudry (eds.), 515–519 (= Mudry [2006], 473–477).
- (1985), "Médecins et spécialistes. Le problème de l'unité de la médecine à Rome au 1^{er} siècle apr. J.-C.," *Gesnerus* 42, 329–336 (= Mudry [2006], 467–472).
- (1990), "Réflexions sur la médecine romaine," *Gesnerus* 47, 133–148 (= Mudry [2006], 397–408).
- (1997), "Éthique et médecine à Rome: la préface de Scribonius Largus ou l'affirmation d'une singularité," in: Flashar/Jouanna (eds.), 297–336 (= Mudry [2006], 207–230).
- (2006), "*Medicina, soror philosophiae*." *Regards sur la littérature et les textes médicaux antiques (1975–2005)*, Maire, B. (ed.), Lausanne.
- /Pigeaud, J. (eds.) (1991), *Les écoles médicales à Rome* (Actes du 2^e colloque international sur les textes médicaux latins antiques, Lausanne, septembre 1986), Geneva.
- Niedermann, M./Liechtenhan, E. (eds.) (1968), *Marcellus. Über Heilmittel*, herausgegeben von M. Niedermann. Zweite Auflage besorgt von E. Liechtenhan †. Übersetzt von J. Kollesch und D. Nickel, Berlin.

- Pigeaud, J./Oroz, I. (eds.) (1987), *Pline l'Ancien. Témoin de son temps* (Conuentus Pliniani internationalis Namneti 22–26 oct. habiti acta edenda curarunt Iacobus Pigealdus Namnetensis, Iosephus Orozius Salmanticensis), Salamanca/Nantes, 1987.
- Prontera, F. (2002), “Geografia,” in: Mastrosera/Zumbo (eds.)/Santini (dir.), 225–245.
- Radici Colace, P. (2002), “Astrologia come linguaggio e letteratura,” in: Mastrosera/Zumbo (eds.)/Santini (dir.), 87–110 and 131–137 (bibliography).
- /Zumbo, A. (eds.) (2000), *Letteratura scientifica e tecnica greca e latina* (Atti del seminario internazionale di studi, Messina, 29–31 ottobre 1997), Messina.
- /Medaglia, S.M./Rossetti, L./Sconocchia, S. (eds.)/Radici Colace, P. (dir.) (2010), *Dizionario delle scienze e delle tecniche di Grecia e Roma*, Pisa/Rome.
- Rhodus, I. (1655), *Scribonii Largi Compositiones medicae. Ioannes Rhodius recensuit, notis illustravit, lexicon Scribonianum adiecit*, Patavii.
- Römer, F. (1987), “Zum Vorwort des Scribonius Largus. Literarischer Schmuck einer Rezeptsammlung,” *Wiener Studien* 100, 125–132.
- Santini, C. (2002), “Astronomia,” in: Mastrosera/Zumbo (eds.)/Santini (dir.), 139–189.
- Scarborough, J. (1969), *Roman Medicine*, Ithaca.
- Schonack, W. (1912), *Die Rezeptsammlung des Scribonius Largus. Eine kritische Studie*, Jena.
- (1913), *Die Rezepte des Scribonius Largus zum ersten Male vollständig ins Deutsche übersetzt und mit ausführlichem Arzneimittelfregister*, Jena.
- Sconocchia, S. (1976), “Novità mediche latine in un codice di Toledo,” *Rivista di filologia e di istruzione classica* 104, 257–269.
- (1981), *Per una nuova edizione di Scribonio Largo. I nuovi apporti del codice Toletano*, Brescia.
- (1983), *Scribonii Largi Compositiones*, Leipzig.
- (1985), “Le fonti e la fortuna di Scribonio Largo,” in: Mazzini/Fusco (eds.), 151–213.
- (1987), “La structure de la *NH* dans la tradition scientifique et encyclopédique romaine,” in: Pigeaud/Oroz (eds.), 623–632.
- (1988a), *Studi di letteratura medica latina*, Ancona.
- (1988b), “Appendice sull’uso del nominativo e dell’accusativo assoluto. 1. In greco. 2. In latino,” in: Sconocchia (1988a), 91–114.
- (1991), “Le problème des sectes médicales à Rome au I^{er} s. apr. J.-C. d’après l’œuvre de Scribonius Largus,” in: Mudry/Pigeaud (eds.), 137–147.
- (1993), “L’opera di Scribonio Largo e la letteratura medica latina del I sec. d. C.,” in: *Aufstieg und Niedergang der Römischen Welt* 2.37.1, 843–922.
- (1995), “Nuovi testimoni scriboniani tra tardo antico e medioevo,” *Rivista di filologia e di istruzione classica* 123, 278–319.
- (2000), “La *Praefatio* di Scribonio Largo,” in: Radici Colace/Zumbo (eds.), 315–357.

- (2002), "Medicina," in: Mastroianni/Zumbo (eds.)/Santini (dir.), 275–379.
- (2010), "L'*Antidotos hiera* di Scribonio Largo e suoi rifacimenti attraverso il tempo," in: Langslow/Maire (eds.), 131–145.
- Stok, F. (2002), "Etnografia," in: Mastroianni/Zumbo (eds.)/Santini (dir.), 197–224.
- Tecuşan, M. (2004), *The Fragments of the Methodists: Methodism Outside Soranus*, 1. *Text and Translation*, Leiden/Boston.
- Urso, A.M. (2002), "La letteratura astrologica. Gli autori," in: Mastroianni/Zumbo (eds.)/Santini (dir.), 111–130 and 131–137 (bibliography).

The Ancient Latin Commentary on the Hippocratic *Aphorisms* on the Threshold of the Twelfth Century

Manuel E. Vázquez Buján

Abstract

The oldest commentary on the Hippocratic *Aphorisms* was originally written in Latin around the time of Isidore of Seville and is part of the Alexandrian exegetic tradition. This paper studies the different ways this commentary has been disseminated since the beginning of the twelfth century. Based primarily—but not exclusively—on the preface to the text, two methods of revision, opposite to the tradition of the early Middle Ages, are noticed: (a) Some manuscripts contain an abridgment of the text, where some parts are deleted, especially the didactic ones; (b) other codices rewrite or enlarge the text. In the case of the preface, these additions refer to questions about the author of the treatise, the didactic method, and the division into parts. Different aspects of these additions to the preface suggest that they stem from a cultural environment corresponding to the beginning of the twelfth century.

Introduction

Since the middle of the eleventh century—and especially from the twelfth—one notices an expansion of medical studies due to the direct recovery of the Greek tradition and to the arrival of the rich Arab tradition thanks to the activity of translators. However, contrasting with the traditional point of view according to which the previous tradition had supposedly been abandoned, several researchers have recently focused on the possible presence at the

※ Translated by Andrew Rollings, subsequently revised by Jon Wilcox. All translations from Latin are mine.

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beginning of the expansion of the Salernian school¹ of a notable number of Latin medical texts from the early Middle Ages. One might say that these texts have been the object of several reworkings, whether on the level of content or of expression. Of course, those changes cannot be understood without reference to the period and cultural background in which they were made. Within this framework, I propose to explore the ways in which use was made of the oldest of the Latin commentaries on the Hippocratic *Aphorisms* (Lat A) as from the beginning of the twelfth century.

Let us remember, incidentally, that this commentary seems to have been written at about the time of Isidore of Seville and that it has its roots in the Alexandrian tradition of late antiquity.² It is a kind of medical encyclopaedia, the contents of which has a fairly strong theoretical basis, notably from an etiological point of view. One may immediately state that this text is not a translation from Greek, although this does not mean that it is not rooted in the Byzantine exegetic tradition, judging from the expositive procedures and the parallelism with Greek commentaries, notably that of Stephanus of Athens. One aspect of this commentary worth scholarly attention is the extent of its manuscript tradition. Indeed, by contrast with the case of most Latin medical texts of late antiquity, Lat A has enjoyed an enormous circulation and the number of manuscripts that have transmitted it is quite high.³

In the copies from the ninth and tenth centuries, the text maintains a fairly remarkable uniformity, but after the end of the eleventh century the manuscript tradition reveals several changes. It is on this point that I shall focus my analysis. With this purpose in mind, I shall refer to evidence from two manuscripts which transmit an abridged version of the text, and from three others which, by contrast, give an expanded version of it.⁴ Given the large amount of modification, I shall only cite a few specimens and, in the case of the expanded version, my study only refers to the preface. This preface raises some curious problems from a historical point of view: the attribution of the commentary to Oribasius, the explanatory method, and the distribution of stages in human

1 This is not the moment for dwelling on the history of the Salernian school; I refer the reader to the classic study by Kristeller (1986); for a recent work, one can consult Jacquart/Paravicini Bagliani (eds.) (2007), a collective publication containing some papers that are very remarkable in many respects.

2 On this unpublished commentary, of which I am preparing an edition, one can consult Beccaria (1961); Fischer (2002); Vázquez Buján (2005).

3 Cf. Beccaria (1961: 26–29); Kibre (1985: 34–40).

4 The text of the expanded version is included in the edition of Winter of Andernach (1533). I shall not use as evidence this edition, which, incidentally, modifies to a very large extent the text of the manuscripts, even the most recent ones, notably at the lexical level.

life, considering that the *Aphorisms* can provide an answer to all kinds of illnesses, whether male or female, and irrespective of age.

1 The Abridged Version

One notes straight away that some manuscripts give shortened versions of our commentary, or, one might say, extracts from it. This is precisely the case of the Brussels codex, Bibliothèque Royale de Belgique, 3701–15 (II). The second part of this manuscript is dated by Beccaria⁵ at the end of the eleventh century and occupies f° 34 to 65. The manuscript is lacking pages at the beginning and at the end, as the text starts on f° 34^{ra} with aphorism 2.13 and stops on f° 65^v with number 6.53.

The Real Biblioteca de San Lorenzo de El Escorial holds the Latin manuscript N. III. 17, the contents of which are entirely medical. It is a manuscript copied probably in Italy in late Caroline minuscule, dated initially as twelfth or thirteenth century; however, a detailed palaeographic analysis suggests dating it around the middle of the twelfth century or even earlier.⁶ The Lat A commentary occupies f° 2^r–40^v.

I shall not dwell on the numerous cases of suppression of a part of the text circulating in the Carolingian tradition. Other examples indicate a somewhat different situation. By way of a sample, I have transcribed the text of an aphorism in order to throw light on this way of proceeding since the end of the eleventh century:

Lat A: Versio antiqua

4.48 *Sin autem non deficientibus febribus, si quidem foris frigidi sunt, quae autem intro ardeant et sitem habeant, mortale est.* Questio nobis datur contra Yppocratem dicendo: sepius uidimus in typicis febribus frigidorem esse et sitem habere ut ardeant et neque mortale neque malum est. Sed aliud dicit Yppocratis et ante accessionem; nam nunc Yppocrati opponeretur si ignorasset aut cottidianum aut tertianum diem. Nunc ergo regulariter loquitur et dicit: si antea fuerit febris, fuerit idem et debilitas et si estas superuenerit, malum est. Videamus quare. Et dicimus: ut istud sit signum est quia in uitali loco tumorem fecit et natura cum humoribus naturalem calorem ad locum patientem decurrit et dum querit liberare, ipsa potius occidit quam liberat. Frigidi foris ideo sunt quia derelinquit

⁵ Beccaria (1956: 113–116) and (1961: 29).

⁶ For all details on this manuscript, I refer the reader to Vázquez Buján (2009: 164–167).

calor superficiem et interius, ut diximus, decurrit; et tale quidem patitur in istis quod patitur Constantinopoli uiri cottidie ad palatium occurrentes, et, ubi senserint domum ardere, currunt cum siphonis, liberant domum. Sic et natura uult liberare, sed ipsa potius occidit quam liberat.

On the other hand, in the non-intermittent fevers, if the patients are cold on the outside, and on their inside they are burning hot and suffering from thirst, this is a mortal sign. There is a question that is raised against Hippocrates, and it is this: we have quite often seen, in typical cases of fevers, that there is coldness and that patients are thirsty to the extent of being burning hot, and that this is not, however, mortal nor even harmful. But Hippocrates means different things depending on whether he is referring to the moment before or after the exacerbation; for, would it not be uncharacteristic of Hippocrates to fail to recognise the daily fever or the tertian? Now he speaks in accordance with the rule and he says: in the case of the fever being one that is continuing from some time before, the patient would be weak and thirsty, and that would be mortal. Let us examine the cause of this. We state that this situation indicates that a tumefaction has been produced in a vital part, and that nature, jointly with the humours, displaces natural heat to the affected part and, looking for its release, what it does is killing rather than releasing. Sick people are cold on the outside because heat abandons the surface and penetrates to the inside, as we have said; and the condition that they suffer is comparable to what occurs in Constantinople: people who come every day to the palace, when they notice that a house is burning, run with the siphons and save the house. In the same way, nature also wants to release, but what it does is killing rather than releasing.

Bruxelles, Bibl. Royale, 3701–15 (II), f^o 51^{vb}–52^{ra}

4.48 *Si autem non deficientibus febribus, foris frigidi sunt et intus ardeant et sitim habeant, mortale est.* Foris si febris fuerit et debilitas superuenerit, signum est mortis, quia in uitali loco tumorem fecit. Et ideo frigidi sunt quia calor derelinquit superficiem et interius decurrit; et dum querit liberare, non ualet, quia natura cum humoribus ad locum patientem decurrens, dum querit eruere, potius occidit.

On the other hand, in the non-intermittent fevers, if the patients are cold on the outside, and on their inside they are burning hot and suffering from thirst, this is a mortal sign. If the patients are hot on the outside and they feel weak, this is a mortal sign, because a tumefaction has been produced

in a vital part. Sick people are cold because heat abandons the surface and penetrates to the inside; and although nature wants to release, she is not able to do it, because she, jointly with the humours, displaces herself to the affected part; she wants to protect, but, instead, she kills.

San Lorenzo de El Escorial, Real Biblioteca, N. III. 17, f^o 26^r

4.48 *Si autem non deficientibus febribus, foris frigidi sunt et intus ardeant et sitim habeant, mortale est. Foris ideo frigidi sunt quia calor derelinquit superficiem et interius decurrit; et dum querit liberare, non ualet; et dum natura ad locum patientem decurrit, dum querit eruere, ipsa pocius occidit.*

On the other hand, in the non-intermittent fevers, if the patients are cold on the outside, and on their inside they are burning hot and suffering from thirst, this is a mortal sign. Sick people are cold on the outside because heat abandons the surface and penetrates to the inside; and although nature wants to release, she is not able to do it. Nature displaces herself to the affected part; she wants to protect, but, instead, she kills.

Without having exhaustively researched the matter, one may formulate a few comments, albeit provisional ones. First, it has to be pointed out that the text of the short versions is based on the text of the most ancient tradition; this is particularly true in the case of the lemmas, preserved with hardly any changes. However, one realises straight away that at that period there was in circulation a type of synthetic abridgment of the major text transmitted by the Carolingian tradition. Similarly, one sees that the text of the two manuscripts apparently has its origin in a common project, although the text of the manuscript at El Escorial is even shorter than that of the Brussels codex. In any case, the fact that most of the extracts which appear in the two manuscripts essentially coincide leads one to think that one is dealing with what was originally a single process of selection.

If one looks more closely at the text, one observes that the recent manuscripts coincide in omitting most of the ancient text, especially the initial part, the character of which is decidedly didactic. But one of the short and paraphrastic extracts which appear in the Brussels manuscript is missing from the one at El Escorial (*Foris si febris—tumorem fecit*). We should note that the final part (*et dum querit—occidit*) corresponds only partly to the text of the original version, for the phrase in the middle (*natura—decurrrens / decurrit*) is taken from the ancient source, but as a displacement. This, again, confirms the paraphrastic method of shortening the text.

Since I shall presently deal with the preface in order to highlight the use of Lat A for a new composition enriched by several more or less lengthy passages, I wish to emphasise that the situation that has just been described is similarly valid as far as this preface is concerned. It is missing, as was mentioned above, from the Brussels manuscript, but it has been transmitted in the El Escorial one, which allows us to compare the text with that of the ancient version.⁷ Indeed, and without dwelling on the fine changes of a stylistic or linguistic nature, one notices that three of the seven questions posed in the preface have been omitted by the author of this shortened version: the second, i.e. the usefulness of the *Aphorisms*; the fourth, where we find an explanation of the area of medicine to which the treatise belongs; and the sixth, which refers to the explanatory method.

2 The Expanded Version

On the other hand, there is another way in which Lat A is used. One notices it on several occasions and it consists in expanding the text with the addition of parts that are of considerable size, in the form of simple additions or, rather, by the means of a new and expanded writing of the text. Such an expanded text is attested notably by the Vendôme manuscript 172 (eleventh–twelfth century), as well as by the Paris one, BnF, *Latin 4888* (twelfth century) and by that of the Biblioteca Apostolica Vaticana, *Vat. lat. 3426* (twelfth century).⁸ We know the history of manuscript 172 at Vendôme quite well. Because of the

7 The ancient version of this preface, which I cannot reproduce here, has been edited by Beccaria (1961: 39–41); the text of the El Escorial codex is to be found on f° 3r.

8 Although the analysis is limited to the preface, I have explored other parts of the text, and the coinciding of these three manuscripts concerning the additions and the expanded passages is found to be completely confirmed. Fischer (2000: 7, n. 11) adds the evidence of the manuscript of the British Library, *Royal 12 E. XX*, pointing out that it gives a “slightly shorter” version of the preface; this manuscript only transmits a few isolated chapters, mixed with passages from the *Medicina Plinii*: f° 114r–115r: Lat A.1.1; 4.37; 4.38; 4.41; 4.42; f° 116r: Lat A.5.64; the preface, which is found on f° 116r–116v, corresponds to the expanded version, but it ends just at the part concerning the order of reading. K.-D. Fischer has kindly provided me with the transcription of the preface according to the Bethesda manuscript, National Library of Medicine, (De Ricci) 8, mid-twelfth century, which transmits the whole of the commentary; as regards the preface, this manuscript gives the expanded text of the passages on the *modi doctrinae* and on the division of the *Liber aforismorum*, but not for the part concerning the authorship of the treatise.

type of writing and decoration,⁹ as well as binding technique,¹⁰ it is believed to have been copied at the abbey of La Trinité during the abbacy of Geoffroy (1093–1132).

In light of the manuscript tradition, we are then in a position to date the undertaking of that expanded writing of our commentary as being the very end of the eleventh century or very beginning of the twelfth. Now, this phenomenon seems particularly evident in some parts of the preface in which the author analyses the different questions that were posed prior to its reading.¹¹ It goes without saying that these reworkings are related to the cultural currents of their period and that by this fact they can shed light on the history of the text at a given moment. We shall, in what follows, focus our analysis on three of those preliminary questions in order to verify whether or not the results may be compatible with the data of the manuscript tradition.

2.1 *The Author of the Commentary Lat A*

First of all, I present the text concerning the question of the author of the commentary:

Lat A, *praefatio* (versio antiqua)

Si uere ipsius est adnotatio libri. In antiquis enim temporibus multi nuncupati sunt Yppocratis, unde dicunt aliqui quia liber iste non est Yppocratis. Cui et redditur talis ratio: quia residente Rufo et Pelos et Licos et alii multi, quia approbauerunt uerum esse librum hunc Yppocratis. Deinde dicimus quia nemo talem opus potuit facere qualem Yppocratis, quem philosophi amicam naturae dixerunt. Temptauit quidem Democritus talia facere, non tamen ut Yppocratis perfecit.

It has been questioned whether this treatise is genuinely by Hippocrates. In ancient times many people received the name of Hippocrates, which is why some argue that this treatise is not by Hippocrates. The answer is the following: with the authority of Rufus's judgement, both Pelops and Lycus and many others accepted this treatise as the authentic work of Hippocrates. We can add that no one else was capable of creating a work like that which came from the pen of Hippocrates, whom the

9 Cf. Giordanengo (1998: 110–111), where she proposes as a date the third decade of the twelfth century.

10 Cf. Vezin (2003: 51–52).

11 A panoramic view of this problem is offered in Mansfeld's work (1994).

philosophers called “friend of the nature.” Democritus tried something similar, but he was not capable of it as Hippocrates was.

Lat A, *Praefatio* (versio aucta; Ms. Vendôme, *Bibl. Municip.*, 172)

Queritur inter hæc an Ypocratis Choi proprius sit hic liber. In antiquis enim temporibus multi nuncupati sunt Ypocrates, unde dicunt aliqui quia liber iste Ypocratis Choi non est. Quibus et redditur talis ratio: quia residente Rufo, Pelops et Lycos et alii multi approbauerunt uerum esse librum hunc Ypocratis Choi. Deinde dicimus quia nemo tale opus potuit facere quale iste Ypocras, quem phylosophi amicum naturę dixerunt. Temptauit quidem Democritus talia facere, sed non potuit. *Verum apud grecos primum aforismi micuerunt studiosissima inuentione et sollicita indagine Ypocratis Choi; apud latinis autem translatione Pelopis, qui cautissime uerbum e uerbo transferens imitatus est Ypocratis breuioloquium. Commentatores fuerunt, id est Pelops et Lycus et Rufus et Suranus et Domnus et Galienus et Attalio et multi alii. Commenta recollegi et ordinaui ego Uribasius monente Ptolomeo Euergete¹² post LXX perfectissimorum medicorum ruminationem una relegentium et philosophicas quæstiones discutientium.*

It has been questioned whether this treatise is genuinely by Hippocrates of Cos. In ancient times many people received the name of Hippocrates, which is why some argue that this treatise is not by Hippocrates of Cos. The answer is the following: with the authority of Rufus's judgement, both Pelops and Lycus and many others accepted this treatise as the authentic work of Hippocrates of Cos. We can add that no one else was capable of creating a work like that which came from the pen of Hippocrates, whom the philosophers called “friend of the nature.” Democritus tried something similar, but he was not capable of it. *The Aphorisms shone first among Greek people due to the hard work, consequent discoveries and meticulous research of Hippocrates of Cos; and then they shone among Latin people, thanks to the translation by Pelops, who carefully transferred the text word for word and reproduced Hippocrates' concise style. There were exegetes, such as Pelops, Lycus, Rufus, Soranus, Domnus, Galen, Attalius and many others. I myself, Oribasius, have compiled and arranged the explanations, following the guidance of Ptolemy Evergetes, after the reflections of 70 very wise doctors who, in a group, read them many times and suggested many philosophical questions.*

12 *Euergete* is attested only by the Vendôme manuscript, while those of Paris and the Vatican give *et regnante*.

The initial part is common to the two texts and supports the attributing of the *Aphorisms* treatise to Hippocrates on the authority of various authors—Rufus, Pelops, Lycus, and several more—as well as on the extraordinary aptitude of Hippocrates, the only person capable of undertaking a text of such a nature. After this argument in favour of the Hippocratic authenticity of the treatise, the longer text modifies the ancient text by means of an addition that gives the history of aphorisms: the flowering in the Greek period thanks to Hippocrates, the word by word Latin translation by Pelops, the different commentaries which Oribasius gathers and mixes, in such a way as to produce the text in question (Lat A).¹³ The three authors whose names are explicitly cited in the common part reappear in the added passage and their authority is sometimes invoked by the author of the Latin commentary: Pelops, the master of Galen, and Lycus of Macedonia,¹⁴ student of Quintus, who in turn was the student of Marinus, in aphorisms 2.17 and 4.50, and Rufus in 4.37. Beside these three authors, the name of Domnus, missing in the ancient text of the preface, appears in 4.37. The commentator also refers to other authorities who are not included in the list in the preface, such as Marinus *Anatomicus* (second century A.D.)¹⁵ in 7.50. Of course, the presence of Galen is ubiquitous. On the other hand, Attalio¹⁶ only appears in the added part of the preface, and Soranus is cited—no doubt in the wake of the Greek tradition¹⁷—in the two texts of the preface as author of a division of the book of the *Aphorisms* into three sections, but he is absent from the text of Lat A.

In fact, A.E. Hanson and M.H. Green¹⁸ are sceptical about the activity of Soranus as exegete of Hippocrates, and they suggest that the name of Soranus had replaced that of Sabinus, present in the Greek commentary of Stephanus of Alexandria. If one bears in mind what occurs later in the same preface, where a few manuscripts of the long text include the *Liberysagogarum Surani*¹⁹ alongside the *Precepts* (*Praecepta*) of Hippocrates as reading material for students after the *Oath* (*Iusiurandum*) and before the *Aphorisms*, one might

13 Winter of Andernach (1533: 5^v), in his *editio princeps*, uses as a heading to the preface the title: *Praefatio Oribasii in Aphorismos Hippocratis*; then he changes the form of the version, replacing the name of Oribasius with *ego ipse*, “I myself.”

14 Cf. Littré (1839: 106–108).

15 An author often cited by Galen. Cf. von Staden (1989: 159 and 236–237).

16 Attalio or Aptalio is the author who is attributed with, in two manuscripts of the twelfth century, another commentary on the *Aphorismes*, considered more recent (Lat B). Cf. Fischer (2002: 286–287).

17 Cf. Westerink (1985: 31.11–16 and 27–29).

18 Hanson/Green (1994: 1018–1021).

19 Specifically the manuscripts Paris, BnF, *Latin 4888* (twelfth century) and BAV, *Vat. lat. 3426* (twelfth century).

have nothing to be surprised about if the name of Soranus had been added among the commentators of the *Aphorisms* because of his prestige towards the end of the eleventh century and at the beginning of the twelfth.

A similar explanation has to be given for the attribution of the commentary to Oribasius. The name of this doctor from the end of the fourth century was not without prestige. He had borrowed in his work on medicine some extracts from several previous doctors, notably Galen, and the encyclopaedic character of his work had provided Justinian with the model for his project of gathering a doctrinal corpus of ancient judicial texts.²⁰ In fact, attribution of the commentary is shrouded in a kind of legend, for the reference to Ptolemy Evergetes as an instigator of the work of Oribasius, attested almost unanimously by the manuscripts, is evidently not believable.²¹

2.2 *The Passage on the “modi doctrinae”*

A second and rather remarkable novelty refers to the question concerning the *modi doctrinae*, i.e., the method of presenting the doctrine to those who want to learn medicine or the explanatory method. The Carolingian tradition of Lat A is unanimous in transmitting a very short text, establishing the existence of five *modi*, coinciding in this respect with the commentary by Agnellus on the Galenic treatise *Art of Medicine* (*Ars medica*).²² However, the manuscripts of the longer text preserve a much longer version according to which the *modi* are reduced to four instead of five.

With the intention of completing the picture of the data I wish to give, I should point out that part of the passage on the *modi doctrinae* transmitted by the recent manuscripts of Lat A reappears in the preface of the *Isagoge* of Soranus edited in 1528 by A. Thorer in Basel²³ and reprinted by P. Manutius in 1547 in Venice;²⁴ here are the three texts:

²⁰ Cf. Herberger (1981: 142–145).

²¹ M.-H. Marganne has drawn my attention to the reference to the activity of the seventy doctors, which seems like an echo of the Greek version of the Alexandrian or *Septuaginta* Bible. 72 Jewish wise men would seem to have been the authors.

²² Cf. Flammini (1992: 612–614). In fact, this triadic classification derives from the first chapter of the *Ars medica* of Galen; cf. Palmieri (2005: 78).

²³ Thorer (1528: unnumbered, before 1).

²⁴ Manutius (1547: unnumbered, before 159). Fischer (2000: 8–9) has shown that the preface to these editions also appears in the manuscript 1358 (M 5) (twelfth century) of the Metropolitan Chapter of Prague, which contains, further on, several passages of the *Isagoge*. Fischer justifiably thinks that, in spite of a few differences in the order of the chapters, Thorer's edition must have drawn its text from a manuscript which in its turn refers to that Prague manuscript.

Lat A, *Praefatio* (versio antiqua)

Modus doctrinae. Modus enim diximus esse quinque, tres habere ordinem et duo non habent. Intellectualis et diuisibus ordinem non habent; resolutius et complexius et difinitius ordinem habent, in quibus et modus iste regitur.

The didactic method. We have said that there are five methods: three of them follow an order and the other two do not. The intellectual and the divisive do not follow an order; the analytic, the complexive, and the defining follow an order; the method of this treatise follows these rules.

Lat A, *Praefatio* (versio aucta; Ms. Vendôme, *Bibl. Municip.*, 172)

Modus doctrinae. *Si queritur modos, in aforismis dicimus esse IIIor: intellectuallem, complexium, diuisibilem, definitium. Intellectualis dicitur eo quod intellectu, id est contemplatione, tam uirorum quam mulierum egritudines exequatur et consideret; complexius, quod omnia complectatur, id est comprehendat, nichilque relinquat; diuisibilis, eo quod corpus humanum per partes diuidat earumque egritudines particulatim declaret; definitius, quod cuncta definiat recteque determinet.* Habent quoque ordinem, ut prius sit intellectualis, deinde complexius, inde etiam diuisibilis, ad ultimum definitius. Prius enim rem intellectu tenemus; post uero intellectam sicut est, totam complectimur; inde etiam ac si per intellectum comprehensam diuidimus; ad ultimum enim comprehensione diuisam definimus et determinamus. In quos etiam modos liber iste redigitur.

The didactic method. If the question of methods is posed, we answer that there are four: the intellectual, the complexive, the divisive, and the defining. The intellectual is so called because through the intellect, that is, through reflexion, it searches and examines every illness of men and women; the complexive, because it covers all aspects, that is, it embraces everything without leaving out anything; the divisive, because it divides the human body into parts and it clarifies in great detail their illnesses; the defining, because it defines everything and establishes it correctly. Furthermore, they follow an order, so that the first one is the intellectual, then the complexive, then the divisive, and finally the defining. In fact, we first grasp the matter with the intellect; once we have understood it as it is, we embrace it all; then, after embracing it through the intellect, we divide it; finally, once we have embraced and divided it, we define and establish it. These are the methods of elaborating this treatise.

A. Thorer (1528)

Modos in aphorismis reperies quatuor, Intellectualem, complexiium, diuisibilem, et definitiuum. Intellectualis dicitur, eo quod intellectu, id est contemplatione tam uirorum quam mulierum aegritudines exequitur et considerat. Complexiuis, quod omnia complectatur, id est comprehendat, nihilque intactum relinquat. Diuisibilis, eo quod corpus humanum per partes diuidat, earumque aegritudines particulatim declarat. Diffinitiuus, quod cuncta definiat, recteque determinet. Nos uero in hoc opere. . .

Speaking of the *Aphorisms*, you will see that there are four methods: the intellectual, the complexive, the divisive, and the defining. The intellectual is so called because through the intellect, that is, through reflexion, it searches and examines every illness of men and women; the complexive, because it covers all aspects, that is, it embraces everything without leaving out anything; the divisive, because it divides the human body into parts and it clarifies in great detail their illnesses; the defining, because it defines everything and establishes it correctly. In this work we. . .

By way of parenthesis, it should be emphasised that the preface to the *Isagoge* in Thorer's edition and in the Prague manuscript is, basically, the same as in the *Medical Questions* (*Quaestiones medicinales*) edited by V. Rose.²⁵ Only there is a difference: the part concerning the *modi doctrinae* which the preface to the *Isagoge* (*Introduction*)—including the Prague manuscript version, f^o 49^v–50^r—shares with that of Lat A, is missing in that of Rose's *Quaestiones medicinales*. This fact is considered surprising by K.-D. Fischer²⁶ because the presentation of the text of the *Quaestiones medicinales* in the form of questions and answers would if anything be closer to the concept of "aphorism" than that of the *Isagoge*. Fischer observes that this passage has been taken from the preface of Lat A, which presumably happened at some time or other between the date of the commentary (fifth or sixth century) and that of the Prague manuscript (twelfth century). At this point, we should remember again that there must have existed fairly close links between the text of the *Aphorisms* and that of the *Isagoge* during the late Middle Ages since certain manuscripts of the long version of the preface to the Hippocratic text include that text as reading matter for students.

25 Rose (1870: 243). Rose cites this passage from Thorer's edition and Herberger (1981: 158–160) cites it from Rose's edition as evidence of the dogmatic method.

26 Cf. Fischer (2000: 12–13).

Given that the Prague manuscript and the printed editions make direct reference to the *Aphorisms*, one can accept that that part of the preface of the *Isagoge* has as its origin that of Lat A. Now, the real question that poses itself is to know when that rewriting of the text took place, for the oldest tradition transmits uniformly a version of that preface that is much shorter and of somewhat differing content.

In order to see this more clearly, one must, to my mind, explore the quadripartite division. Indeed, we know the triadic distribution of the *modi doctrinae*, the origin of which seems to go back to the preface of Galen's *Ars medica*. We find it again in the tradition of the Greek commentators, but also in the commentaries of Agnellus on the treatises *Art of Medicine* (*Ars medica*), *On the Pulse for Beginners* (*De pulsibus ad tirones*), and *On Sects* (*De sectis*), where the range of methods is limited to the three that are restricted to a particular order;²⁷ in a certain way, this division is also present in the ancient version of the preface of Lat A.

In the treatise *On Divine Predestination* (*De diuina praedestinatione*) of Johannes Scotus Eriugena, one finds a tetradic division regarding the method of teaching philosophy: “divisive” (*diuisoria*), “defining” (*diffinitiva*), “demonstrative” (*demonstrativa*), and “analytic” (*resolutiva*).²⁸ G. Madec, the editor of this treatise in the *Corpus Christianorum*, has shown that one is dealing with the “dialectic methods” (διαλεκτικαὶ μέθοδοι) of the Alexandrian commentators of Aristotle and especially of Porphyry's *Isagoge*.²⁹ We know that Eriugena knew the works of some of the followers of Aristotle in Greek, and his description of philosophy as a *quadriuium* with four branches coincides with the four branches of the dialectic of the Peripatetics of Alexandria: Ammonius on the *Prior Analytics* (*Analytica priora*), Pseudo-Ammonius (on Porphyry's *Isagoge*), and David the Armenian (on the same text).³⁰ Given the differences that there are between the types of method established in the two classifications, one would not even be able to suggest a direct connection between our preface and that text of Eriugena. What to me seems interesting is the hypothetical Aristotelian substratum that one may detect in the tetradic

27 The vocabulary is Latinized in the *Ars medica* (“synthetic” [*compositivum*], “analytic” [*resolutivum*], “defining” [*determinativum*]), as well as in the *De pulsibus* (*compositivus et resolutivus et ex termini disolutionem*); on the other hand, the *On Sects* (*De sectis*) keeps the Greek words (*analeticon* “analytic,” *sinteticon* “synthetic” *et exorolisibus* [sc. *ex oro lisis*] “defining”). Cf. Palmieri (2005: 78).

28 Ioh. Scot. *Pred.* 1.1.18–27 (Madec 5–6).

29 Madec (1978: 6).

30 Cf. Sheldon-Williams (1973: 3–4). See also Théry (1931: 220–224).

division of the augmented preface of the Lat A commentary. To my mind, one is allowed to think that the reworking of this preface took place at the time that Aristotelianism began to gain strength, just at the beginning of the twelfth century. Perhaps it is here that one has to look for the explanation of the attribution to Soranus of the adjective *peripateticus* in the printed editions of the *Isagoge*: an author of “logical” tradition is easily considered as Aristotelian in a milieu where this current was becoming more and more important.

2.3 *The Division of the Treatise*

The third element of the long text of the preface of Lat A which has to be taken into account, with a view to establishing the date of its reworking, concerns the passage on the division of the *Aphorisms* treatise:

Lat A, *praefatio* (versio antiqua)

In quot partibus diuiditur praesens liber? Suranus in tres, Rufus in quatuor, Galienus in septem. Si enim certam requiras rationem, quot aforismi sunt, tot partes.

Into how many parts is this treatise divided? Soranus divided it into three; Rufus into four; Galen into seven parts. Actually, if you are looking for a definitive criterion, there are as many parts as aphorisms.

Lat A, *praefatio* (versio aucta; Ms. Vendôme, *Bibl. Municip.*, 172)

In quot partibus diuiditur praesens liber aforismorum? Suranus diuisit in tribus; Rufus in IIIor, Galienus in VII, *in quibus habentur digesta omnium egritudinum prognostica utriusque sexus, tam in infantibus quam in pueris, iuuenibus etiam, senibus et decrepitis. Vt enim Pelops magister Galieni dixit, humanę uite partes sunt V: pigra, exercitabilis, iuuenilis, senilis, decrepita. Pigra est in qua infantie tarditas ostenditur; exercitabilis est puerilis, in qua exercitationum intemperantias denotamus; iuuenilis, quę etatis perfecte robore insignitur; senilis in qua iam roboris declinationem uidemus; decrepita, quę quasi iam finis aut bona aut mala dicitur.* Si enim requiris certam rationem, quot aforismi sunt, tot et libri partes.

Into how many parts is this treatise of the *Aphorisms* divided? Soranus divided it into three; Rufus into four; Galen into seven parts, *in which the predictions of all illnesses of both sexes are included: children, adolescents, adults, the elderly and the decrepit. In fact, as Pelops, Galen's teacher,*

said, human life has five stages: the slow one, the one of exercise, the one of strength, the senile, the decrepit. The slow one is the one in which the slowness of childhood is visible; the one of exercise is adolescence, where we find the excesses of exercise; the one of strength, which is distinguished by the full power of adulthood; the senile, where we notice the decline of strength; the decrepit, considered as the end, good or bad. Actually, if you are looking for a definitive criterion, there are as many parts as aphorisms.

In this section, the expanded version is profoundly different from the old one. Indeed, a long digression on the ages of man has been added, in which Pelops, the master of Galen, is attributed with the distribution of a man's life into five successive parts: "child" *infans*, "adolescent" *puer*, "adult" *iuvēnis*, "elderly" *senex*, "decrepit" *decrepitus*. Now, the spread of ages based on the number five was practically unknown in ancient culture, the most frequently cited authority being Varro. The principal reference point on this matter is Origen, who related the parable of the vine in St. Matthew's Gospel (20.1–8) with the ages of life during which man can be called by the Lord. This parallel was soon adopted by medieval Christian culture: one finds it in Gregory the Great³¹ and, in his wake, in Tajón of Zaragoza (second half of the seventh century); during the Carolingian period, in Paul the Deacon (ca. 720–ca. 799), Hrabanus Maurus (780–856), the Benedictine monk Haimo of Auxerre (fl. ca. 840–860), and Otfrid of Wissembourg (ca. 800–ca. 870). But, during this initial period of the Middle Ages, that distribution is limited to the passage of Matthew, while the real expansion of that classification took place back at the beginning of the late Middle ages, when preachers and exegetes very often used it.³²

From the chronological point of view, one would be inclined to think that the presence of such a doctrine in a medical text would belong more to a later period. Now, the lexis can provide us with some complementary information. Indeed, the naming of the five ages, widespread in the early Middle Ages, especially following Gregory the Great, keeps fairly rigidly to the sequence "childhood, adolescence, adulthood, the senile, the decrepit" (*pueritia, adulescentia, iuuentus, senectus, decrepita aetas*). On the other hand, the long preface of the Lat A commentary reveals a somewhat different terminology: *infans, puer, iuvēnis, senex, decrepitus*. Now, this same terminological sequence is to be found in the *Explanatio Symboli sancti Athanasii* of Hildegard of Bingen,³³ known as "Athanasian Creed" and dated around 1170. It is true that this was in

31 Greg. M. *In euang.* 19.2 (Étaix 145).

32 Le Goff/Schmitt (1999: 12–14).

33 Hildeg. *In symb. Athan.* 265 (Evans 118).

the second half of the twelfth century, but it is equally certain that, within the long period, we are dealing with a relatively short time; also, one should not forget that the context in which we find Hildegard's distribution is no longer the passage from Matthew.

4 Conclusions

If one is to draw conclusions from the above analyses, one could establish two types of statement:

- (a) One can state without hesitation that from the twelfth century onwards, one way of using the ancient commentary on the *Aphorisms* (Lat A) was to give a kind of summary of it; the parts intended for presentation to students were omitted, as well as the examples, keeping only the essential parts.
- (b) In the same period, one finds in another branch of the manuscript tradition—which Winter of Andernach's edition continues—another way of using our commentary. This time, the text has been clearly enlarged and the additions bear witness to a cultural context which, from the point of view of philosophical ideas, probably Aristotelian ones, as well as of the distribution of the ages of man, lead one to think that the reworking of the text took place at the very end of the eleventh century or at the very beginning of the twelfth. All this prompts us to believe that we are dealing with a text that is new in several respects. This late diffusion, undoubtedly very important in the context of the history of the use of the commentary as a manual or *summa*—in line with the customs of that century—, has, however, a fairly secondary repercussion in view of the edition of the text of Lat A.

Bibliography

- Beccaria, A. (1956), *I codici di medicina del periodo presalernitano (secoli IX, X e XI)*, Rome.
- (1961), "Sulle tracce di un antico canone latino di Ippocrate e di Galeno, 2. Gli *Aforismi* di Ippocrate nelle versioni e nei commenti del primo medioevo," *Italia medioevale e umanistica* 4, 1–75.
- Ferraces Rodríguez, A. (ed.) (2005), *Isidorus medicus. Isidoro de Sevilla y los textos de medicina*, La Coruña.

- Fischer, K.-D. (2000), "The *Isagoge* of Pseudo-Soranus: An Analysis of the Contents of a Medieval Introduction to the *Art of Medicine*," *Medizinhistorisches Journal* 35.1, 3–30.
- (2002), "‘Zu des Hippokrates reich gedeckter Tafel sind alle eingeladen’. Bemerkungen zu den beiden vorsalernitanischen lateinischen Aphorismenkommentaren," in: Geerlings/Schulze (eds.), vol. 1, 275–313.
- Flammini, G. (1992), "Le strutture prefatorie del commento all'antica traduzione latina degli *Aforismi*," in: Santini/Scivoletto (eds.), 579–616.
- Geerlings, W./Schulze, Ch. (eds.) (2002–2004), *Der Kommentar in Antike und Mittelalter. Beiträge zu seiner Erforschung*, 2 vol., Leiden/Boston/Cologne.
- Giordanengo, G. (1998), "La bibliothèque de Geoffroy de Vendôme (1093–1132)," *Cahiers de civilisation médiévale* 41, 105–125.
- Hanson, A.E./Green, M.H. (1994), "Soranus of Ephesus: *methodicorum princeps*," *Aufstieg und Niedergang der römischen Welt* 2.37.2, 968–1075.
- Herberger, M. (1981), *Dogmatik. Zur Geschichte von Begriff und Methode in Medizin und Jurisprudenz*, Frankfurt am Main.
- Jacquart, D./Paravicini Bagliani, A. (eds.) (2007), *La Scuola medica salernitana. Gli autori e i testi* (Atti del convegno internazionale, Università degli studi di Salerno, 3–5 novembre 2004), Florence.
- Kibre, P. (1985), "*Hippocrates Latinus*": *A Repertorium of Hippocratic Writings in the Latin Middle Ages*, Revised edition, New York.
- Kristeller, P.O. (1986), *Studi sulla Scuola medica salernitana*, Naples.
- Lardet, P. (ed.) (2003), *La tradition vive. Mélanges d'histoire des textes en l'honneur de Louis Holtz*, Turnhout.
- Le Goff, J./Schmitt, J.-C. (1999), *Dictionnaire raisonné de l'Occident médiéval*, Paris.
- Litré, É. (1839), *Hippocrate. Œuvres complètes*, vol. 1, Paris.
- Madec, G. (1978), *Iohannis Scotti De diuina praedestinatione liber*, Turnhout.
- Mansfeld, J. (1994), *Prolegomena: Questions to Be Settled before the Study of an Author Or a Text*, Leiden/New York/Cologne.
- [Manutius, P.] (1547), *Medici antiqui omnes, qui Latinis literis diuersorum morborum genera et remedia persecuti sunt*, Venetiis.
- O'Meara, J.J./Bieler, L. (eds.) (1973), *The Mind of Eriugena* (Papers of a Colloquium, Dublin, 14–18 July 1970), Dublin.
- Palmieri, N. (2005), *Agnellus de Ravenne. Lectures galéniques: le "De pulsibus ad tirones"*, Saint-Étienne.
- Rose, V. (1870), "*Anecdota Graeca et Graecolatina*". *Mitteilungen aus Handschriften zur Geschichte der griechischen Wissenschaft*, vol. 2 (1870) Berlin and vol. 1 (1864) Berlin, ([1963] reprint Amsterdam).
- Santini, C./Scivoletto, N. (eds.) (1992), *Prefazioni, prologhi, proemi di opere tecnico-scientifiche latine*, vol. 2: *Prefazioni*, Rome.

- Sheldon-Williams, I.P. (1973), "Eriugena's Greek Sources," in: O'Meara/Bieler (eds.), 1–15.
- Staden, H. von (1989), *Herophilus: The Art of Medicine in Early Alexandria*, Cambridge.
- Théry, G. (1931), "Scot Érigène, traducteur de Denys," *Archivum latinitatis mediæ ævi* 6, 185–278.
- Thorer, A. [Torinus, Albanus] (1528), *De re medica huic volumini insunt, Sorani Ephesij Peripatetici, & vetustissimi Archiatri, in artem medendi Isagoge, hactenus non visa. D. Oribasii Sardiani fragmentum, de victus ratione, quolibet anni tempore utili, antea nunquam aeditum. C. Plinii Secundi de re medica libri V accuratius recogniti, & (nothis ac pseudepigraphis semotis) ab innumeris mendarum millibus, fide vetutissimi codicis repurgati. L. Apuleii Madaurensis, philosophi Platonici, de herbarum virtutibus, vere aurea & salutaris historia, e tenebris eruta, & a situ vindicata. Accessit his vice coronidis, Libellus utilissimus de Betonica, quem quidam Antonio Musae, nonnulli L. Apuleio adscribendum autumnant, nuper excusus: Praeterea . . . Index*, Basileae.
- Vázquez Buján, M.E. (2005), "Isidoro de Sevilla y los libros de medicina. A propósito del antiguo comentario latino a los *Aforismos* hipocráticos," in: Ferraces Rodríguez (ed.), 243–262.
- (2009), "El maestro astuto y el caudillo burlado: un texto menor sobre Aristóteles y Alejandro Magno," *Euphrosyne* 37, 163–176.
- Vezin, J. (2003), "Onze reliures de la Trinité de Vendôme réalisées sous l'abbatiate de Geoffroy (1093–1132)," in: Lardet (ed.), 43–52 and 2 p. (plates). In appendix, short description from the 11 manuscripts concerned: Vendôme, Bibliothèque municipale 31; 53; 99; 114; 129; 130; 133; 140; 144; 172; 175.
- Westerink, L.G. (1985), *Stephani Atheniensis in Hippocratis Aphorismos commentaria*, 1, Berlin.
- Winter of Andernach, Johann (1533), *Oribasii medici clarissimi commentaria in Aphorismos Hippocratis hactenus non uisa, Ioannis Guinterii Andernaci Doctoris Medici industria uelut e profundissimis tenebris eruta et nunc primum in medicinae studiosorum utilitatem aedita*, Paris.

On Terminological Variation in the Late Latin Translation of the Hippocratic *Aphorisms*

Gerd V.M. Haverling

Abstract

There is much variation in the technical terminology in the translation of the Hippocratic *Aphorisms* and in the *Old Commentary* on that text. The translator of the Greek text sometimes uses Greek words that are not common in Latin and that have created problems in the later transmission of the text; and he often chooses Latin expressions that are not very elegant and that do not always correspond to the Latin technical terminology. The author of the *Old Commentary* often chooses a more elegant form of Latin and a technical terminology more in accordance with that of Roman medicine; he also explains the Greek expressions found in the translation. There are therefore reasons to assume that the person who translated the Hippocratic *Aphorisms* was a native speaker of Greek rather than of Latin and that the author of the *Old Commentary* was a native speaker of Latin who knew Greek.

1 Introduction

There is a considerable amount of variation in the Latin language and in the medical terminology in the manuscripts transmitting the late Latin translation of the Hippocratic *Aphorisms*, both in the manuscripts containing the *Old Commentary* on that text and in those without it. The Greek terminology has often created considerable problems in the transmission, but there is notable variation also in the Latin terminology. I shall now discuss the variation in the terminology and the relationship between this problem and the problem regarding the first language of the translator and of the author of the *Old Commentary*.

※ All translations from Greek and Latin are mine unless otherwise noted.

2 The Manuscripts Containing the Translation of the Hippocratic *Aphorisms*

The late Latin translation of the Hippocratic *Aphorisms* is found in several manuscripts from the ninth through the twelfth century, with and without commentaries.¹ Of the manuscripts that have the translation without a commentary, three are almost complete:²

- A* = Paris, *Bibl. Nat.*, lat. 7099; f° 1^r–15^r; *Aph.* 1.1–7.60; s. XIIⁱⁿ;
- P2* = Paris, *Bibl. Nat.*, lat. 7021; f° 2^r–18^r; *Aph.* 1.10–7.87; s. IX^m;
- Vcl* = Vendôme, *Bibl. Municip.*, 172; f° 1^v–11^r; *Aph.* 1.1–7.87; s. XIⁱⁿ.

There are also a number of major or minor fragments. The abbreviations are in italics in order to distinguish these manuscripts from the ones in which we also have the commentary:

- Mu* = Modena, *Archivio Capitolare*, O.I.11; f° 25^r–36^v; *Aph.* 5.20–7.86; s. VIII/IX;
- P1* = Paris, *Bibl. Nat.*, lat. 11219; f° 1^{ra}–11^{vb}, 212^{ra}; *Aph.* 2.24–4.75, 5.22–7.83; s. IX;
- P3* = Paris, *Bibl. Nat.*, lat. 7021; f° 1^r–1^v; *Aph.* 1.3–1.23; s. Xⁱⁿ;
- Ro* = Rouen, *Bibl. Municip.*, 1407 [= O.55]; f° 196^r–198^v, 215^r–222^v, 199^r–201^v; *Aph.* 1.1–4.72, 7.37–7.87; s. XI^{ex};
- Paris, *Bibl. Nat.*, lat. 7029; f° 32^r–48^v; s. XII^m;
- Lincoln, 333 [37]; f° 1^r–3; s. X.

Of the *Old Commentary* we currently know of about a dozen complete, or almost complete, manuscripts, and a number of fragments of various sizes.³ The complete, or almost complete, manuscripts could be divided into three

1 See Beccaria (1961: 5), Kibre (1976: 262–268; 1977), and Müller-Rohlfen (1980: XXII–XXVII); cf. Haverling (1995 [1998]: 310–315; 2003: 158–161; 2007: 161–164; 2010b: 107–109) and Vázquez Buján (2010: 120–121).

2 After the publication of the acts of the colloquium at Manchester (Langslow/Maire [2010]), Monica H. Green, Arizona State University, kindly gave me some information about the 450 medical manuscripts from about 1075 to about 1225 that she has collected. Some of them seem to contain this translation of the Hippocratic *Aphorisms*: Gotha, Universitäts- und Forschungsbibliothek Erfurt/Gotha, Membr. II 144, s. XI/XII; Vatican, Biblioteca Apostolica Vaticana, ms Ottob. lat. 2298, s. XII; Vendôme, Bibliothèque Municipale, ms 175, s. XI^{ex}.

3 See Kühn (1981: V); cf. Beccaria (1961: 26), Kibre (1976: 259, 262–268).

distinguishable categories. There is an older version, which I refer to as the A version:⁴

- Re = Karlsruhe, *Badische Landesbibl.*, Reichenau CXX, f° 120^r–181^v, 200^r–204^v; s. IX^m;
 Ei = Einsiedeln, *Stiftsbibliothek*, 313, p. 1–217; s. X^{ex};
 P5 = Paris, *Bibl. Nat.*, lat. 7021, I, f° 18^r–118^v; s. IX^m;
 P4 = Paris, *Bibl. Nat.*, lat. 7027, f° 66^r–175^r; s. IX^m;
 G = Glasgow, *Hunterian Mus.*, 404 [= V.3.2], f° 34^r–147^v; s. Xⁱⁿ;
 Ba = Città del Vaticano, *Bibl. Apostol. Vat.*, *Barberini* lat. 160, f° 143^r–198^v; s. XI;
 Mp = Montpellier, *Bibl. de l'École de Médecine*, 185, f° 1^v–98^r; s. XIⁱⁿ;
 Mc = Montecassino, *Archivio della Badia*, V.97, pp. 199^b–282^a; s. Xⁱⁿ;
 Rg = Città del Vaticano, *Bibl. Apostol. Vat.*, *Reg. lat.* 1809, f° 1^{ra}–49^{va}; s. XII^{ex}.

There is also a later version, which I refer to as the B version:

- Vc2 = Vendôme, *Bibl. Municip.*, 172, f° 11^r–72^v; s. XIⁱⁿ;
 Va = *Bibl. Apostol. Vat.*, *Vat. lat.* 3426, f° 1^{ra}–77^r; s. XI;
 P6 = Paris, *Bibl. Nat.*, lat. 4888; s. XII.

One manuscript has an abbreviated version:

- Es = San Lorenzo de El Escorial, *Bibl. real* N.III.17, f° 2^v–34^v; s. XII.

There are also a number of fragments:

- Ah = Göteborgs Universitetsbibliotek, *Fragmentum Ahlquistianum*, s. XIⁱⁿ;
 Bern, Burgerbibliothek, 611; s. VIII;
 Bruxelles, *Bibl. Royale*, 3701–15; s. XI;
 Chartres, *Bibl. Municip.*, 75; s. X^{ex};
 London, British Library, Royal 12.E.XX; s. XII;
 Rouen, *Bibl. Municip.*, 1407 [= O.55]; s. XI^{ex}.

A new commentary is found in Bern:

- Burgerbibliothek* 232; s. X.

4 Some of the manuscripts that Monica H. Green indicated to me seem to have the translation with a commentary: Auxerre, Bibliothèque Municipale, MS 22, Part 2 (f° 70–116), s. XII; Edinburgh, National Library, MS Advocates 18.3.13, s. XII; Paris, Bibliothèque Nationale de France, MS lat. 6951, part 2, s. XI^{ex}. For further details, see Fischer (2002).

There is a close connection between the manuscript tradition of the translation, on the one hand, and of the *Old Commentary* on this text, on the other. One of the manuscripts that have only the translation (A) seems to derive from a manuscript also containing the *Commentary*, a manuscript that was similar to, but not identical with, Vc2. Both parts of the tradition will therefore have to be dealt with in a future critical edition of the translation.

There are traces of vulgarisation of the Latin language in some of the manuscripts, especially in the morphology. In some manuscripts we have the incorrect form *a septem menses* “from the age of seven months” in the commentary on *Aph.* 3.25 (Re, Ei, P5, Mc, Mp), whereas others have the correct ablative instead (Vc2, Va, Ah, Rg, G, Ba); in such cases, however, the manuscripts that have the more unorthodox forms often have correct forms in other passages (and in the commentary on *Aph.* 3.24, Re, Ei, P5, Mc and Mp have the correct *a nutricibus*, “by the nurses”).⁵

However, there are also traces of normalisation of the Latin language in the manuscripts that belong to the B version. One example is found in the commentary on *Aph.* 1.2, where a majority of the manuscripts have the late construction with the genitive “of respect” in “moderate in temperature as regards heat and cold” (*mediocriter temperata siue caloris siue frigidoris*—Mc, Ei, Ba, Mp, G, Re, P5), whereas the B version has the classical one with the ablative (*mediocriter temperata siue calore siue frigore*—Vc2, Va).⁶ The manuscripts of the B version are relatively recent. There seems to be a general tendency around 1000 onwards to render the medical texts easier to understand and more acceptable from the point of view of the Latin language.⁷

3 The Greek in the Translation

In the medical texts from the late Latin period, we encounter a growing number of Greek terms. In the earlier texts, Greek terms were more often translated. Instead of the technical Greek terms, Celsus often uses periphrastic descriptions, but in medical treatises from the later centuries, the Greek terms are more often used instead of such descriptions.⁸

Sometimes the Greek terms even replace established Latin terms. Early and Classical Latin had *lien* (Plautus) or *lienis* (Celsus) for “spleen,” but in the late Latin translation of the Hippocratic *Aphorisms* (*Aph.* 3.22) we find the Greek

⁵ See Haverling (2003: 166–167; 2010b: 109–110).

⁶ See Haverling (2003: 168; 2010b: III–III2).

⁷ This was confirmed by Monica H. Green in her e-mail to me written on Oct. 22, 2010.

⁸ See Langslow (2000: 76–139).

word *splen* (σπλήν), which occurs also in contemporary medical Latin (e.g. Theodorus Priscianus, Cassius Felix).⁹ Another example is *morbus comitialis* (e.g. Scribonius Largus, Celsus) for “epilepsy,” which was replaced by *epilepsia* (ἐπιληψία) in our translation (*Aph.* 3.20, 3.22, 3.29, 5.7 *epilempsia*) and in late medical Latin in general (e.g. Caelius Aurelianus, Theodorus Priscianus, Cassius Felix).¹⁰ In the sense “bile” (χολή) classical Latin has *bilis* (cf. e.g. Cato *Agr.*, Celsus, Scribonius Largus), but this word is replaced by *cholera* in our translation (*Aph.* 4.22, 4.23, 4.24, 6.50, 7.42, 7.69 *colera*) and in late Latin in general (e.g. *Historia Augusta*, Vegetius, Hieronymus, *Anonymus Bruxellensis*); in the sense “black bile” (χολή μέλαινα), classical Latin has *bilis atra* (e.g. Cicero, Celsus, Scribonius Largus), but our translation has *cholera nigra* (*Aph.* 4.22, 4.23, 4.24, 7.69), just like for instance Theodorus Priscianus.¹¹ To translate the adjective χολώδης “bilious,” classical Latin has the adjective *biliosus* (e.g. Celsus, Scribonius Largus), but in that sense our translation usually has *cholericus* (*Aph.* 4.28, 5.64, 7.32, 7.70 *colericus*), which is also found in other late medical Latin texts (e.g. Hp. *Prog.*, Vindicianus, Cassius Felix, Caelius Aurelianus).¹² In these cases there are no traces of the classical terms in the translation of the Hippocratic *Aphorisms* or in the *Old Commentary* on that text.

Many of the Greek words that we find in the translation are frequent in the medical texts from the late Roman period. In this category we have for example φλεβοτομεῖν, *phlebotomare* “to let blood by cutting a vein” (*Aph.* 5.31, 7.46, 7.53) and φλεβοτομία, *phlebotomia* “letting of blood” (*Aph.* 6.22, 6.31, 6.36, 6.47, 7.48).¹³ Another example is βράγχος, *branchus* “sore throat” (*Aph.* 2.40, 3.23).¹⁴

However, in the translation of the Hippocratic *Aphorisms* we very often find the same Greek word as in the original. There are some words that do not belong to the technical terminology. One example is the poetic adjective

9 See Langslow (2000: 93, 155); there are also examples of the adjective *spleneticus* “suffering from an enlarged spleen” (*Aph.* 6.43, 6.48; σπληνητικός; cf. Theod. Prisc., Cass. Fel.); see Langslow (2000: 111, 218, 344, 422).

10 See Langslow (2000: 484); there are also examples of *epilepticus* (*Aph.* 2.45, 3.16 *epilemp-ticus*; ἐπιληπτικός; cf. e.g. Theod. Prisc., Marcell. *Med.*, Chiron, *Vindic.*).

11 See Langslow (2000: 153, 218, 220).

12 See Langslow (2000: 481). *Cholera* (χολέρα) “European or summer cholera” occurs in classical Latin (e.g. Cels., Scrib. Larg.); in that sense our translation has *colerica* (sc. *passio*) (*Aph.* 3.30); cf. Langslow (2000: 218, 239).

13 See Langslow (2000: 122, 125, 507); cf. e.g. Cass. Fel., Hp. *Prog.* 15 (2.148 L.), Ps. Sor., Cael. *Aur. Acut.*, Philagr., Oribas. *Syn.*, Alex. Trall.

14 See Langslow (2000: 115); cf. e.g. Isid. *Orig.*, Theod. Prisc., Cael. *Aur.*, Hp. *Aer. lat.* 10.11 (p. 69 Grensemann = 10.7 Jouanna) *purgari per coriza et brancho* “be purged through the slime that comes from the nose and throat”/ Oribas. *Syn.* 8 *raucitudo* “hoarseness”/.

boreus, which replaces *septentrionalis* in the sense “northerly” (*Aph.* 3.14, 3.17).¹⁵ Another example is the use of *cristallus*, which was poetic in literary Latin, instead of the normal Latin word *glacies* in the sense of “ice” (*Aph.* 5.24).¹⁶

Because of this tendency of the translator to always choose the same expression as the one he finds in the text he is translating, we also have a number of Greek terms that he does not translate and that are not very frequent in late Latin medical texts. In the sense “acid eructation,” Latin has for instance *amarus ructus* (e.g. Cels. 1.3.20), but in our translation we have *oxyregmia* (ὀξυρεγμία) instead (*Aph.* 6.1).¹⁷ The Greek loanword *spasmus* (σπασμός) is frequent in late medical Latin, but the verb *spasmare*, which translates the Greek σπάω in the sense of to “cause convulsion or spasm, provoke a spasm,” is more rare: it occurs in our translation (*Aph.* 5.65) and in Chiron (329, 339, 526, 733).¹⁸ Another unusual Greek word is *ineon*, which replaces *occipitium* or *cervix* in the sense “neck” (*Aph.* 3.26).¹⁹

Sometimes a Greek word occurring in this translation is rare in Greek, too, but occurs in the Greek original. In two such cases there is another Greek word more often used in Latin as well: *carcinus* (*Aph.* 6.38; e.g. Hp. *Aph.* 6.38 [4.572 L.] καρκίνος) is used instead of *carcinoma* (καρκίνωμα; e.g. Cato *Agr.*, Celsus, Pliny *Nat.*) in the sense “ulcer, tumour”;²⁰ and *phtinodes* occurs in the sense “suffering from consumption” (*Aph.* 4.8 [4.504 L.] φθινώδης) instead of the more frequent *phtisicus* (φθισικός) often found in this translation (*Aph.* 3.10, 3.13, 3.16,

15 *Boreus* occurs in poetry (e.g. Verg., *Ou.*, Sen. *Trag.*), but also in prose (e.g. Sen. *Nat.*, Plin. *Nat.*, Hyg. *Astr.*); cf. Hp. *Aer. lat.* 10.7–8 (p. 67 Grensemann = 10.5 Jouanna) *uernum autem boraem et siccum* “a spring with northerly winds and dry”.

16 *Cristallus* occurs in e.g. Lucan., Stat., Mart., Sen. *Nat.*, Plin. *Nat.*, Gell., Ambr., Arnob., Hier., Aug.

17 *Oxyregmia* is not mentioned by Langslow (2000: 288) or in the *Thll* either; but cf. Esculapius 16.1 Fredriksson (20.47 Manzanero Cano); Gariopontus ch. 2.35 (= Esculapius) *Oxyremia est indigestio uel malus ructus, qui fit ex multa comestione* “acid eructation and bad digestion or belch, which is the result of overeating” (cf. Fredriksson [2002: 144]).

18 *Spasmus*, which is frequent in our translation (*Aph.* 2.26, 3.25, 4.16, 4.57, 4.66, 4.67, 4.68, 5.1, 5.2, 5.3, 5.4, 5.17, 5.20, 5.22, 5.56, 5.70, 6.39, 6.56, 7.9, 7.13, 7.18, 7.25), occurs in Celsus, who, however, prefers *distentio neruorum* (Cels. 2.1.12), but soon becomes a technical term in Latin (e.g. Scrib. Larg., Plin. *Nat.*): see Langslow (2000: 113, 493).

19 Cf. e.g. Cael. Aur. *Acut. exc.* 12 p. 709 *cervicem inion dicunt*, Oribas. *Eup.* 4.1 *La posterioribus capitis loca, id est in inio*, Alex. Trall. 1.54 *in posteriori capitis parte, quae inion dicitur*, Oribas. *Syn.* 8.3 Aa add p. 204 *in inio, id est in occipitio*.

20 In Greek καρκίνος occurs in this sense in Hp. *Aph.* 6.38 (4.572 L.), D. 25.95, Gal. *De meth. med.* 2 (10.83 K.).

3.22, 5.9, 5.64) and in Latin in general (e.g. Petronius, Martialis, Vitruvius, Pliny *Nat.*, Scribonius Largus).²¹

Many of the Greek words are not found elsewhere in Latin; among these are *glaucois* (γλαύκωσις) “blindness caused by opacity of the crystalline lens, cataract” (*Aph.* 3.31),²² *apostasis* (ἀπόστασις) “abscession” (*Aph.* 4.31, 4.32, 4.74),²³ *podagrarē* “suffer from gout” (*Aph.* 6.29, 6.30),²⁴ and *cotyledones* “cotyledons, foetal and uterine vascular connexions” (*Aph.* 5.45).²⁵

Some of the Greek words are particularly striking, because they replace more normal Latin expressions. In one case we find the Greek form *cholodes* as a translation of χολώδης “bilious” (1a) instead of *cholericus*, which is found elsewhere in the translation (*Aph.* 4.28, 5.64, 7.32, 7.70). The use of this unusual word has caused considerable problems in the transmission of the text (1b).²⁶ The readings *fellose* and *fellei* in some manuscripts are interesting, because the word *fellosae* occurs in the *Old Commentary* (1c). From there it entered the translation in some of the manuscripts:

- 1a) *Aph.* 2.15 *si enim cholodes fuerint, corpus conpatitur* (ἢν γὰρ χολώδεες ἔωσι, τὸ σῶμα ξυννοσέει “if they are bilious, the whole body is affected,” trans. by Jones);
- 1b) variation in the manuscripts: *cholodes*—*Vc1*; *fellose*—*A*, *Ba*; *fellei fuerint coloris*—*Vc2*; *calidum*—*P2¹*; *colericum*—*P2²*; *calidae*—*Ro*;
- 1c) *Aph.* 2.15 *comm . . . si uero fellose fuerint corpus conpatitur* “if they are bilious, the body is affected.”

A Greek word that seems to be rare in Greek, too, and that has caused considerable problems in the transmission is *alice* “anxiety, distress” (2a–b). Müller-Rohlfen’s conclusion was that the translator did not understand the Greek word:²⁷

21 Cf. also Hp. *Aer. lat.* 7.7 (p. 54 Grensemann = 7.6 Jouanna) *deinde <de> cibo <ph>thinodea et uilia efficiuntur*.
 22 Cf. γλαύκωσις, -εως f. “blindness from γλαύκωμα,” Hp. *Aph.* 3.31 (4.502 L.), Gal. *De usu part.* 10.6 (3.786 K. = Helmreich, vol. 2, p. 74, l. 20) etc.
 23 Cf. ἀπόστασις, -εως f., cf. Hp. *Aph.* 4.31–32 (4.512 L.), 4.74 (4.528 L.), Galen.
 24 The *Thll* quotes these two examples from our translation (*podagro*, ποδαγρῶ); cf. *podagricus* (*Aph.* 6.28, 6.29).
 25 Cf. Hp. *Aph.* 5.45 (4.548 L.): κοτυληδών, -όνος f., “any cup-shaped hollow or cavity, in pl. (in animals);” cf. also *cotyledon* “plan, navelwroth” in Plin. *Nat.*, Scrib. Larg., Marcell. *Med.* etc.
 26 Cf. χολώδης “like bile or gall, bilious,” Hp. *Aph.* 2.15 (4.474 L.), *Epid.* 6.4.4 (5.308 L.), etc.; Langslow (2000: 482) mentions *collodes* (κολλώδης) “viscous, glutinous,” Cass. Fel. *glutinosus*.
 27 Cf. Liddell/Scott/Jones: ἀλύχη f. = ἄλυσις, ἄλυσις, ἄλυσμός, Hp. *Aph.* 7.56 (4.594 L.).

- 2a) *Aph.* 7.56 *Alices, oscitationes, obripilationes, uinum modicum intus bibitum soluit.* = Ἀλύκην, χάσμην, φρίκην, οἶνος ἴσος ἴσῳ πινόμενος λύει
“Distress, yawning and shivering are removed by drinking wine mixed with an equal part of water” (trans. by Jones);
- 2b) variation in the manuscripts: *alices*—*Pl, Vcl*; *aliae*—*Mu*; *alix*—*Ba*; *alicemus*—*P2*; *algor*—*Ro*.

Another very unusual word is *traulus*, which replaces the Latin adjective *balbus* in the sense “stammering, lisping” (3a). There is one other example of this word in Latin, but then with an explanation of the sense (3b):

- 3a) *Aph.* 6.32 *Trauli* [...] = Τραυλοί “Those with an impediment in their speech” (trans. by Jones) (cf. *Hp. Aph.* 6.32 for example);
- 3b) *Physiogn.* 82 *dicit balbos, quos Graeci traulos <uocant>* “He talks about those who are stammering, whom the Greeks call *trauli*.”

The Greek words discussed so far all occur in the Greek original too. In two cases, however, we have a somewhat different word in the original as in the translation. In our translation we have σφακελισμός, which corresponds to the more frequent σφάκελος in the Greek text in the sense of “gangrene” (*Aph.* 7.78);²⁸ and instead of *satyriasis* “swellings by the ears, satyriasis” we find σατυριασμοί (*Aph.* 3.26).²⁹

There are thus circumstances that indicate that the translator worked in a rather mechanical manner: he often chose the same word as the one he found in the Greek original and sometimes did not translate it at all although the Greek words he used were not very common in Latin. The technical terminology of pathology is the area in which we find a particularly great amount of Greek words. The number of such words is considerable in this translation: from this point of view, our translation resembles other translations of medical texts from late antiquity.

Some of the Greek words found in this translation are current in contemporary medical texts written in Latin, but some of them (e.g. *traulus* and *alice* in ex. 2 and 3) are not. There are also some contradictions in this translation:

28 Cf. Liddell/Scott/Jones σφάκελος m. “gangrene, mortification, or, of bones, caries; spasm, convulsion” and σφακελισμός “σφάκελος.”

29 Cf. Liddell/Scott/Jones, σατυριασις, -εως f. “satyriasis; disease in which the bones near the temple become prominent, like Satyr’s horns; swelling of the glands about the ear,” *Hp. Aph.* 3.26 (4.498 L.); Langslow (2000) mentions an occurrence in Theod. Prisc.

the translator uses for instance usually *colericus* “bilious” to translate χολώδης “bilious,” but once he uses *cholodes*.

Several of the Greek words have created problems in the manuscripts. Instead of *alice* “anxiety, distress” we find for instance *algor* “cold” (ex. 2); and instead of *cholodes* “bilious” we find *calidae* “warm” but also *fellosae* “bilious” (ex. 1), which is a word occurring in the *Old Commentary*.

The author of the commentary understood the Greek he found in the translation and he has explained and commented on it in his commentary. In certain cases these translations have replaced the original expression in the translation in the later manuscripts, when the later copyists no longer understood the unusual Greek words in the text.

4 The Late Latin in the Translation

However, there are also differences between the Latin of the translation of the Hippocratic *Aphorisms* and the *Old Commentary* on this text. Often when the translation has a form or a word that is typically late Latin, the author of the *Commentary* seems to prefer a more classical expression. In the translation, there are numerous examples of late Latin word formation such as the “parasyntetical” intransitive verbs *incrassare* “become fat, grow fat” (*Aph.* 1.3, 5.44), *insurdare* “become deaf” (*Aph.* 4.60), and *infrigidare* “become cold” (*Aph.* 4.40, 5.19, 5.26), which replace the older verbs with the suffix *-sc-* (*crassescere, obsurdescere, frigescere*).³⁰ However, from this point of view the testimony met with in the manuscripts is contradictory in the sense that the manuscripts that tend to have a more elegant form of Latin often have the transitive form in the passive voice instead of the intransitive active one (4a–d):

- 4a) *Aph.* 5.44 Müller-Rohlfen: *Quae extra naturam graciles constitutae conceperint, abortiunt, antequam incrassent* “pregnant women who are unnaturally thin miscarry until they have grown stouter”;
- 4b) variation in the manuscripts: *incrassent*—*Mu, P2; incrassentur*—*P1, Vcl*;
- 4c) *Aph.* 1.3 *comm.* (ed. by Kühn [1981]) *et de multo sanguine corpora eorum incrassant . . . uel alii, qui impinguant* “and their bodies grow stouter of much blood . . . or others who grow stouter”;
- 4d) variation in the manuscripts: *incrassant . . . impinguant*—*Re, Ei, P5, P4; incrassantur . . . impinguantur*—*Ba, Vc2, Mc, G.*

30 On this development, see Haverling (2000: 311–314; 2010a: 324–326).

Sometimes, however, a manuscript of the *Commentary* has an intransitive verb in the citation of the *Aphorism* but the transitive and passive form in the commentary on that text (5a–b):

- 5a) *Aph.* 5.19 Müller-Rohlfen: *Quaecumque infrigdauerint, recalefacere, exceptis, quae sanguinant aut sanguinabunt* “heat parts that are chilled except where hemorrhage threatens”;
- 5b) *Aph.* 5.19 + *comm.*: *In presenti iubet ut ea quae nimis infrigdata sunt ipsa recalefiant* “here he commands that the parts that are too cold should be heated.”

The intransitive use of such parasynthetical verbs was not considered to be very elegant in late Latin: there are very few examples, although later developments show that the phenomenon must have been very frequent. Instead of these verbs the more literary texts have the passive forms of the corresponding transitive verbs.³¹

Another example of the colloquial character of the Latin of the translator is what appears to be the choice of the verb *addentire* in the sense “cut teeth” to translate the verb ὀδοντοφύειν of the Greek original (6a–b).³² In the commentary we find the text *dentire ceperint* “they have begun to cut teeth” (7a–b). We may safely assume the existence of an intransitive verb *addentire* in the Latin of the fifth or sixth century A.D., because it is what the manuscripts to this passage seem to imply and because there are other examples of this verb in medieval manuscripts and finally because a verb formed in such a way corresponds very well to the general tendencies in late Latin (cf. e.g. CL *uesperascit* and LL *aduesperat*, CL *obdormisco* and LL *addormisco*).³³

- 6a) *Aph.* 3.25 Müller-Rohlfen: *Cum autem ad dentes uenerint* “at the approach of dentition”;
- 6b) variation in the manuscripts: *ad dentia ueneri(n)t*—*Pl*, *VcI*; *P5*, *Re*, *Ei*, *Mp*, *G*; *addentiauerint*—*P2*; *Bern*; *addentauerint*—*Ah*; *addentauerit*—*Mc*; *ad dentes uenerint*—*Ro*; *Ba*, *Es*; *ad dentes peruenerint*—*A*; *Vc2*, *Va*, *Rg*;
- 7a) *Aph.* 3.25 *comm.*: *dum dentire ceperint* “when they have begun to cut teeth”;

31 See Haverling (2010a: 326).

32 Prof. K.-D. Fischer has kindly informed me of the fact that we find the form *addentiauerint* in this passage in *Bern*, *Burgerbibliothek* 232 f° 20^v and that there is an example of *addentire* in *Parisinus Latinus* 11218 f° 23^r l. 7 *sqq.*

33 See Haverling (1995: 316–317; 2000: 282–287; 2010a: 338–340).

- 7b) variation in the manuscripts: dentire ceperint—Mc, G, Rg; dum denti receperint—Ei, Mp; dum dentare ceperunt—Ah; dum dentes receperint—Re, Vc2, Va, Ba, Es

The translator thus seems to use a more colloquial kind of Latin than the author of the *Old Commentary*.³⁴ Sometimes he seems to use expressions that do not entirely correspond to the traditional medical terminology in Latin. In order to translate the expression τοῖσι σκληρὰς τὰς κοιλίας ἔχουσιν “for those who have a hard abdomen” he uses *qui uentres duros habent* (*Aph.* 3.25). Here there are different readings in the manuscripts, however. In some manuscripts we read *et crassioribus pueris et qui uentres duros habent* “and for the big children and for those who have a hard abdomen” (*Ro*, *Pl*, *P2*, *Vc1*; Mc, Ah, P5, Bern). There are, however, some manuscripts containing the *Old Commentary*, and one manuscript that only has the translation, which have *et crassiores pueri uentris constrictionem patiuntur* “and the big children suffer from a hard abdomen” (*A*; Vc2, Va, Ba, Re, Ei, Mp, Es, Rg, G).³⁵ The technical expression in Roman medicine seems to have been *constrictio uentris* (Oribas. *Syn.* 1.17, 6.8).³⁶ There is, however, also an expression *uenter durus* (“hard abdomen”), which we find above all in texts not dealing with human medicine (e.g. Mart. 13.29.2, Chiron 395). It seems thus probable that someone who knew the traditional terminology of Roman medicine changed what was originally almost a word for word rendering of the Greek original.³⁷

Another example of the choice of an expression that does not correspond to the normal terminology of Roman medicine is the choice of *oris uulnerationes* to translate στομάτων ἐλκώσεις “ulcerations of the mouth” in the Greek original in *Aph.* 3.21 (4.496 L.) found in some manuscripts (e.g. *P2*, *Vc1*, *Pl*, *Ro*, Ah, P5). In this case we have *oris ulcerationes* in some other manuscripts (e.g., Re, Vc2, Ei, Ba, Mp, G); this is the reading that better corresponds to the terminology of Roman medicine (cf. e.g. Cels. 2.1.18, Plin. *Nat.* 34.115).³⁸

34 See Haverling (2007: 172).

35 Mazzini (1984: 28) mentions that the translator of the *De obseruantia ciborum* often comments on and explains the technical Greek terminology.

36 Cf. also Oribas. *Syn.* 6.13 and Theod. Prisc. *Eup.* 2.4; and cf. *constrictorius* = “stalticus” in Langslow (2000: 355).

37 There is an example of *uentres duri* in *Aph.* 3.5 too; cf. Esculapius 9.1 Fredriksson (20.28 Manzanero Cano).

38 Cf. Cels. 2.1.18 *Propriae etiam dentientium gingiuarum exulcerationes, febriculae* (“Especially in those teething there arise ulcerations in the gums, slight fever” trans. by Spencer) and Plin. *Nat.* 34.115 *oris etiam gingiuarumque exulcerationes* (“ulcerations in the mouth and even in the gums”).

Another example of the relatively inelegant kind of Latin encountered in the translation is the choice of the late Latin word *zernae* to translate *λειχήνες* “skin eruptions” in the Greek (8a). In the manuscripts we find much variation in this case (8b). We find this word in Cassius Felix, who, however, seems to prefer the classical word *impetigines* (9a–b). In the *Old Commentary*, too, the word *zernae* is explained as *impetigines* (10a–b):

- 8a) *Aph.* 3.20 Müller-Rohlfen: *et leprae et zernae et maculae* “skin diseases and skin eruptions and blemishes”;
- 8b) variation in the manuscripts: *zernae*—P2, Vc2; *izernae*—R; *zerniae*—P1, Vc1, Ei; *lerniae*—Ba;
- 9a) *Aph.* 3.20 *comm.* *Zerne uero impetigines sunt* “but *zerne* are skin eruptions”;
- 9b) variation in the manuscripts: *zerne*—Vc2; *lerne*—Ba;
- 10a) Cass. Fel. 11 (24 Fraisse) *Ad impetigines i. zernas* “to the skin eruptions, i.e. *zernae*”;
- 10b) Cass. Fel. 11.1 (24 Fraisse) *Impetigines quas Graeci lichenas uocant, Latini uulgo zernas appellant* “skin eruptions which the Greeks call lichens, those who speak Latin commonly call *zernae*.”

It is interesting to note that some of the words that were distorted in the later tradition appear to have been common in spoken Latin in late antiquity. There are also examples of the later—and even more vulgar—character of the Latin in the translation and of the somewhat more educated character of the Latin of the *Old Commentary*.

5 Discussion

When we see the variation in the manuscripts of medical texts, we sometimes have to ask ourselves how the practising physicians read and used these texts, which seem to be partly incomprehensible and even contradictory. The rather superficial analysis that I have attempted in this paper seems to indicate that there are several sources and reasons for this variation.

The first problem regards the character of the translation—the identity of the translator as well as the function of his translation. Three theories have been proposed:

- 1) His first language was Latin, but he did not know Greek well enough, and that would explain his choice of Greek words in certain cases (as by, e.g., Müller-Rohlfen [1980]);

- 2) He was a Greek physician who knew Latin but not perfectly (as by Mazzini [1984], who has suggested that several medical texts were translated by Greek physicians at Ravenna);
- 3) The translation was originally an interlinear one, i.e. a translation made in order to facilitate the study of the Greek original rather than to be read alone without the original Greek (as by Palmieri [2009]).

In my opinion, the language of the translator was Greek rather than Latin. If the language of the translation was Greek, he would have learned the Latin spoken at his time rather than the norms of the literary standard. A Greek translator would also have had more trouble finding the proper Latin words. That would explain the difference between the translation and the *Old Commentary* as regards the character of the Latin language. That would also explain the choice of Greek technical terms that are rare in Latin and the choice of Latin expressions that are not current as technical terms instead of the traditional Latin medical terms.

Whether the translation was interlinear or not is hard to tell. However, even an interlinear translation done by a reasonably well-educated native speaker of Latin would probably have been more elegant than the one we have; and the translation was very soon used as an independent Latin text by the person who wrote the commentary.

The next problem is the respect with which the author of the *Old Commentary* treats the translation of the Hippocratic *Aphorisms*. Although he often prefers a somewhat more elegant form of Latin than he finds in the translation, he does not seem to have corrected the Latin of that translation. In his *Commentary* he often uses more classical terms and terms that are more in accordance with Latin medical terminology, but that does not prompt him to change the wording of the translation. The language of the author of the *Old Commentary* seems thus to have been Latin, but he knew Greek, and he explains the technical terms he finds in the translation.

Later on the technical Greek terms—and in certain cases also some Latin terms—were changed and corrupted in the transmission of the text. It is at this moment that some of the Latin terms found in the *Commentary* were transferred to the translated text.

Bibliography

- Beccaria, A. (1961), "Sulle tracce di un antico canone latino di Ippocrate e di Galeno. 2. Gli *Aforismi* di Ippocrate nelle versioni e nei commenti del primo medioevo," *Italia medioevale e umanistica* 4, 1–75.

- Cuzzolin, P./Baldi, Ph. (eds.) (2010), *New Perspectives on Historical Latin Syntax*, vol. 2: *Constituent Syntax: Adverbial Phrases, Adverbs, Mood, Tense*, Berlin/New York.
- Ferraces Rodríguez, A. (ed.) (2007), *Tradición griega y textos médicos latinos en el período presalernitano* (Actas del 8 coloquio internacional "Textos médicos latinos antiguos," A Coruña, 2–4 septiembre 2004), A Coruña.
- Fischer, K.-D. (2002), " 'Zu des Hippokrates reich gedeckter Tafel sind alle eingeladen.' Bemerkungen zu den beiden vorsalernitanischen lateinischen Aphorismenkommentaren," in: Geerlings/Schulze (eds.), vol. 1, 275–313.
- Fredriksson, M. (2002), *Esculapius' 'De Stomacho'*. Edited with an introduction, translation and commentary, Ph.D. thesis, Uppsala.
- Garofalo, I./Lami, A./Roselli, A. (eds.) (2009), *Sulla tradizione indiretta dei testi medici greci* (Atti del 2 seminario internazionale di Siena, Certosa di Pontignano, 19–20 settembre 2008), Pisa/Rome.
- Geerlings, W./Schulze, Ch. (eds.) (2002–2004), *Der Kommentar in Antike und Mittelalter. Beiträge zu seiner Erforschung*, 2 vol., Leiden/Boston/Cologne.
- Haverling, G.V.M. (1995) [1998], "Un nuovo frammento della traduzione 'Ravennate' degli *Aforismi* di Ippocrate e del vecchio commento cosiddetto 'Oribasiano,'" *Italia medioevale e umanistica* 38, 307–317.
- (2000), *On "Sco"-verbs, Prefixes and Semantic Functions: A Study in the Development of Prefixed and Unprefixed Verbs from Early to Late Latin*, Göteborg.
- (2003), "Sur le latin vulgaire dans la traduction 'ravennate' des *Aphorismes* d'Hippocrate," in: Solin/Leiwo/Halla-aho (eds.), 157–172.
- (2007), "Sulle categorie di tempo, aspetto e azionalità nella traduzione 'ravennate' degli *Aforismi* d'Ippocrate," in: Ferraces Rodríguez (ed.), 159–176.
- (2010a), "Actionality, Tense and Viewpoint," in: Cuzzolin/Baldi (eds.), 277–523 (= chap. 4).
- (2010b), "On Textual Criticism and Linguistic Development in the Late Latin Translation of the Hippocratic *Aphorisms*," in: Langslow/Maire (eds.), 105–118.
- Henderson, J., (ed.)/Jones, W.H.S. (trans.) (1931), *Hippocrates*, vol. 4, Cambridge MA/London, repr. 2005.
- Kibre, P. (1976), "*Hippocrates Latinus*: Repertorium of Hippocratic Writings in the Latin Middle Ages. 2," *Traditio* 32, 257–292.
- (1977), "*Hippocrates Latinus*: Repertorium of Hippocratic Writings in the Latin Middle Ages. 3," *Traditio* 33, 253–295.
- Kühn, J.-H. (1981), *Die Diätlehre im frühmittelalterlichen lateinischen Kommentar zu den hippokratischen Aphorismen (I.1–II). Text und Untersuchungen*, Neustadt-Weinstr (Selbst-verl.).
- Langslow, D.R. (2000), *Medical Latin in the Roman Empire*, Oxford.
- /Maire, B. (eds.) (2010), *Body, Disease and Treatment in a Changing World: Latin Texts and Contexts in Ancient and Medieval Medicine* (Proceedings of the Ninth

- International Conference on Ancient Latin Medical Texts, Hulme Hall, Université of Manchester, 5–8 September 2007), Lausanne.
- Liddell, H.G./Scott, R./Jones, H.S. (1968), *A Greek–English Lexicon with a Supplement*, Oxford.
- Mazzini, I. (1984), “*De obseruantia ciborum*”. Traduzione tardo-antica del Περὶ διαίτης pseudoippocratico l. 2, Rome.
- Müller-Rohlfen, I. (1980), *Die lateinische ravennatische Übersetzung der hippokratischen Aphorismen aus dem 5./6. Jahrhundert n. Chr. (Textkonstitution auf der Basis der Übersetzungscodices)*, Ph.D. thesis, Hamburg.
- OLD = Glare, P.G.W. (ed.) (1982), *Oxford Latin Dictionary*, Oxford (1985 reprint).
- Palmieri, N. (2009), “L’Ippocrate latino tardoantico. Qualche esempio di bilinguismo imperfetto,” in: Garofalo/Lami/Roselli (eds.), 11–26.
- Solin, H./Leiwo, M./Halla-aho, H. (eds.) (2003), *Latin vulgaire–latin tardif 6* (Actes du 6^e colloque international sur le latin vulgaire et tardif, Helsinki, 28 août–2 septembre 2000), Hildesheim/Zürich/New York.
- Spencer, W.G. (transl.) (1935), *Celsus, De medicina*, vol. 1, Cambridge MA/London, repr. 1971.
- ThlL* = *Thesaurus linguae Latinae*, Leipzig (1900–1999), Munich (to 2006), Berlin (from 2007).
- Vázquez Buján, M.E. (2010), “Éléments complémentaires en vue de l’édition critique de l’ancienne version latine des *Aphorismes* hippocratiques,” in: Langslow/Maire (eds.), 119–130.

From Cassius Felix to *Tereoperica*: New Considerations on Indirect Tradition

Laura López Figueroa

Abstract

The main source of the medieval treatise *Tereoperica* is Cassius Felix's work *On Medicine* (*De medicina*). A peculiar characteristic of these Romans from Africa is that they tend to use Greek sources more than other Latin medical authors, as for example Marcellus the Empiricist or Gargilius Martialis; therefore, we find in Cassius Felix's work fragments from Galen translated into Latin and directly integrated into his text. The successive editors of *On Medicine* have only used the testimony of *Tereoperica* secondarily, but in some passages this medieval treatise seems to resemble more the original version of *On Medicine* than its own direct tradition. The aim of this paper is to present a revision of the importance of the indirect tradition for the critical edition of *On Medicine* through the comparative study of both texts and through the example of selective cases.

Introduction

Tereoperica, also called traditionally *Petrocellus*,¹ is a medieval treatise of unknown authorship. It is, like *On Medicine*,² a medical compilation of

※ English translation revised by María Begoña Freire Besteiro and Jon Wilcox. All translations from Latin are mine.

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1 De Renzi (1856: 4, 185–286) ascribed the authorship of the treatise to a doctor called Petrocellus of Salerno, basing his attribution just on one recent and marginal note that says *Practica Petrocelli Salernitani*. But this attribution is doubtful considering that if there was indeed a doctor called Petrocellus who was a member of the School of Salerno, he would have lived at least two centuries after the copy of the oldest codex that we have found containing the treatise (Paris, BNF, *latin 11219*).

2 Fraisse (2002); Rose (1879).

pathology, aetiology, and therapeutics since it presents the description of different illnesses and their causes, as well as the appropriate prescriptions for each of the diseases. The type of medical compilation that is included in *Tereoperica* would have had essentially a practical aim: it would have expected to help the users of the treatise to calm their pains and treat their illnesses, as it is suggested at the beginning of *Tereoperica*:

... Opus ad omnes aegritudines mitigandas et cum Dei gratia corporum uexatas.

A work for relieving all illnesses and the suffering of the body by the grace of God.

The composition of *Tereoperica* took place towards the end of late antiquity and the beginning of the early Middle Ages. In this period many treatises like *Tereoperica* were composed through the compilation of medical texts influenced, among other things, by Alexandrian tradition.³ The copied⁴ works are usually treatises in Greek, translated into Latin between the fourth and seventh centuries to satisfy readers' requirements in an increasingly monolingual society.

Certainly, in the early Middle Ages Greek was no longer the language in use, but it was a sign of culture and also the language for medical science, especially in authors like Cassius Felix.⁵ Greek sources and Greek language appear throughout the whole of *On Medicine* and *Tereoperica* and in both treatises we find interesting transcriptions of Hellenisms into Medieval Latin,⁶ some of them very difficult to identify. Sometimes, we must turn to Cassius Felix to find out the sense and the etymology of some odd transliterations in *Tereoperica*,

3 The influence of some philosophical learning methods that were imported from the School of Alexandria is clear in the *Epistola peri hereseon*, introduction to *Tereoperica*; in the *Epistola* we can emphasise the usage of repetitions, the question-answer formula or the *diairesis*. Cf. Duffy (1984).

4 To be precise, they are not literal copies; as we confirm in the case of *Tereoperica*, a complex process of repetition, interpretation, and preservation occurs. Therefore, the sources used do not remain unchanged, but they are often modified through, for example, summaries, additions, extrapolations, as far as necessary.

5 Cassius Felix's work is the one that presents the largest number of Greek loan words among the Latin medical treatises: Celsus 26%, Scribonius Largus 27%, Theodorus Priscianus 35%, Cassius Felix 45%. Cf. Langslow (1994: 228–229).

6 To examine the use and adaptation of the Hellenisms in Latin medical language, especially in Cassius Felix's language, cf. Langslow (1989) and Fraisse (1998).

but the reverse is also required in other cases. We will focus on an example of the indispensable need to compare both texts; in this case *Tereoperica* is a valuable source for the critical edition of *On Medicine*: in the second paragraph of chapter 37 (*For Patients with Angina, Ad synanchicos*) of *On Medicine*, only the text of *Tereoperica* gives the most appropriate transliteration for the Greek word:

... Ex ipsa parte, quam Graeci *catixin* uocant ...
From the same part, that Greeks call catixin.

The direct tradition of *On Medicine* reads *atexin* GP *antearin* C *anthesin* V respectively; therefore, in this case, the unique testimony of *Tereoperica* was chosen by the two editors⁷ for inclusion in the edited text of *On Medicine*.

As we have seen, along with the limited knowledge of Greek language in general, technical and scientific terminology posed another difficulty to readers. Only a few people knew Greek, but in the early Middle Ages it was still a prestigious language and was still used to show cultural refinement. As we confirm in Cassiodorus' *Institutions of Divine and Secular Learning* (*Institutiones diuinarum et saecularium litterarum*),⁸ the translated authors were few and, furthermore, long treatises were reduced and fragmented, turning them into a sort of "paperback,"⁹ sometimes anonymous, as with *Tereoperica*, sometimes under the name of the author that inspired them.¹⁰

7 Rose (1879: 82); Fraisse (2002: 92).

8 In Cassiodorus' work, *Institutions of Divine and Secular Learning* (*Institutiones diuinarum et saecularium litterarum*), we find an interesting guide to recognise the authors—and works—that probably circulated throughout medieval libraries, translated from Greek into Latin: Dioscorides, Hippocrates, Galen, or Caelius Aurelianus (Cassiod. *Inst.* 1.31). Furthermore, Cassiodorus shows great interest in the correct use of orthography, so that he writes a treatise, being aware of the problems that an inadequate transcription or a transliteration could involve for the readers, as we prove in *Tereoperica* (Cassiod. *Inst.* 1.30).

9 As Fischer (1999: 123) says: "They offered the best from the past in a digest that was, after all, less cumbersome and a lot cheaper to buy than the individual books that have been drawn on." See also Nutton (1984).

10 The attribution of short and practical treatises to famous doctors is frequent at the beginning of the early Middle Ages. Under the name of well-known authors, such as Hippocrates or Galen, were usually hidden a great variety of *compendia* ("summaries"), besides the treatises of the mentioned authors.

1 Similarities and Differences between *Tereoperica* and *On Medicine*

Parallels between *Tereoperica* and Cassius Felix's work are undeniable throughout both works. *On Medicine* was not the only source used by the compiler of *Tereoperica*, but it was the most important, as it is in the origin of the general exposition of the treatise, for its philosophical content or for the form of its chapters.

Tereoperica proclaims to have exactly the same objectives as *On Medicine*, owing to the fact that it copies almost literally its preface. Cassius Felix says that he will write a summary in Latin of all illnesses borrowed from the Greek authors of the logic sect, by the grace of God:

Omnipotentis Dei nutu monitus placuit mihi ut ex Graecis logicae sectae auctoribus omnium causarum dogmata in breuiloquio latino sermone conscriberem (Cass. Fel. *Praef.* 4 Fraisse).

It was my wish, because of Almighty God's will, to write down in a concise handbook in Latin language, theories borrowed from Greek authors of the logical sect concerning all diseases.

The compiler of *Tereoperica* takes this part of the text to emphasise his objectives, and he places it at the end of the *Epistola peri hereseon* (*The Epistle on the Sects*). The *Epistola* is a theoretical introduction in which some basic notions of medical science are included. Cassius Felix's prologue and the rest of the *Epistola* do not have a relation of content, but the author of *Tereoperica* uses it just before the beginning of the presentation of the chapters to bring out the importance of his objectives.¹¹

Both works present the traditional order *a capite ad calcem*: both begin with head diseases and finish with ones of the feet. A significant amount of the chapters even bear the same title, for example: *Against Ringworm of the Scalp* (*Ad tineas capitis*, Ter. 5), *Against Hair Loss* (*Ad capillorum defluxionem*, Ter. 2) or *Against Head Desquamation* (*Ad cantabriem capitis*, Ter. 6). In both works each chapter is devoted to only one ailment or to analogous illnesses.

Tereoperica uses *On Medicine* as its main source particularly for the first chapters but, as it advances, the differences between them increase considerably. At the end of the treatise, Cassius Felix includes some chapters devoted to general

11 On the *Epistola peri hereseon*, its sources and the particularities of its composition, cf. López Figueroa (2007; 2009).

diseases, while *Tereoperica* ends with foot illnesses. At the end, *Tereoperica* has collected more chapters—on, for example, masculine sexual illnesses—that do not appear in *On Medicine*. To be precise, *Tereoperica* contains 103 chapters while Cassius Felix's work contains eighty-two. Therefore, some other sources apart from *On Medicine* are used by the author of *Tereoperica*; we have found in many passages a strong resemblance to *Therapeutics to Glaucón* (*Ad Glaucónem de medendi methodo*)¹² or to the *Book of Esculapius* (*Liber Esculapii*), a work on chronic illnesses.¹³

The form of the chapters is also taken from the work of Cassius Felix and the structure is different from that one can observe in the other medical treatises used as sources by the compiler of *Tereoperica*.¹⁴ At the beginning of each chapter Cassius Felix designates the illness with one Latin term and one Greek term. For his part, the compiler of *Tereoperica* introduces systematically both terms too, not only in the passages borrowed from *On Medicine*, but also in some chapters copied from other authors where this structure does not appear.

To introduce Hellenisms, *Tereoperica* has copied some expressions from the African's work and uses them usually at the beginning of the chapter. Among these expressions are, for example, "what Greeks call or name" (*quod Graeci uocant* or *appellant*) and "where Greeks got their name from, that is" (*unde nomen a Graecis accepit, id est*). These expressions are so frequent and usual that they tend to appear "avec une insistance lassante," as J. André says,¹⁵ in both works. This incessant repetition is mainly for didactic and pedagogical reasons, as well as the common use of etymologies.¹⁶

Hellenisms are generally transliterations of technical nouns. The writer usually adds the explanation of its etymology to these transliterations in order to try to justify the name of the illness, but he does not always give the correct etymology. In addition, he adds the Latin equivalent, which is usually a noun phrase composed of a substantive and a genitive, of a substantive and an adjective, or of an explicative periphrasis.¹⁷ The most interesting thing is

12 E.g. chapters 8, 52, 62, 70, or 86 from *Tereoperica*, cf. Fischer (2003).

13 E.g. chapters 35, 42, 60, 67, or 74 from *Tereoperica*, cf. Manzanero Cano (1996).

14 With the exception of Theodorus Priscianus, who takes partially this chapter form in the second book (*Logicus*) of *Household Remedies* (*Euporista*), cf. Fraisse (2001: 92–93).

15 André (1963: 66).

16 Fraisse (2002: XXV–XXVI).

17 Guy Sabbah suggests four ways to denominate illnesses in Cassius Felix's work: 1) a specific name, usually in Greek; 2) a general name + an adjective; 3) a general name + genitive that designates the affected places; 4) a name for the patients. Cf. Sabbah (1998a: 297–298).

that both texts make the etymological explanations the beginning of all chapters, according to G. Sabbah: “comme la ‘vedette’ du chapitre,”¹⁸ while the other authors, for example Caelius Aurelianus, usually include it in the middle of the chapter.

After denominating the illness, they continue with the description of the symptoms and the causes of the disease; they then point out the affected areas and finally they describe the necessary treatment to cure the illness. The procedure usually varies depending on the age or gender of the patient or even on the time of the year. It is remarkable that *Tereoperica* uses this structure in every chapter, including those that were not copied from Cassius Felix. This means that the form and the organisation of the chapters taken from *On Medicine* are absolutely normalised for the author of *Tereoperica*.

Undoubtedly the language of *Tereoperica* is more careless than that of *On Medicine*. Grammar and syntax are sometimes neglected; it seems that the compiler was not an expert on Greek and Latin languages, as Cassius Felix was, but he had only a practical aim: to bring together different treatments for illnesses. It is possible that the author of the treatise *Tereoperica* was not a doctor or an expert on medicine at all, but only a compiler of sources, who usually made mistakes copying literally some phrases or summarising some passages so that he sometimes finishes his copy in the wrong place, leaving the text with a sense of incompleteness.

2 Manuscript Tradition of *Tereoperica* and *On Medicine*

Tereoperica survives in, at least, six codices of different period and provenance. Despite this, it is convenient to underline the coincidence of the testimonies, as it allows us to assume a text quite close to the archetype. Anyhow, we are able to propose a classification into two branches, based on the most significant and determinant details; for example, the inclusion of certain passages in one branch and not in the other one, or the important differences of vocabulary, morphology, or even syntax.

In one group we place the codices:

Paris, BNF, *latin 11219 (E)*, s. IX;

London, BL, *Harley 4977 (H)*, s. XI^{ex}–XIⁱⁿ;

London, BL, *Sloane 2839 (S)*, s. XI^{ex}–XIⁱⁿ.

¹⁸ Sabbah (1998a: 303).

These three manuscripts, precisely the older ones, contain a very similar version which seems to be very close to the original text. Certainly, these are the codices that present the most similar version to the texts used as sources by *Tereoperica*, as for example, *On Medicine*.

In the other group of the classification, we place the more recent manuscripts:

Paris, BNF, *latin 7008 (P)*, s. XII^{ex};

Città del Vaticano, BAV, *latin 4421 (V)*, s. XII^{ex};

Paris, BNF, *latin 14025 (R)*, s. XII^{ex}–XIIIⁱⁿ.

From the textual point of view, we emphasise that these recent manuscripts are also *deteriores*, since the textual normalisation is a constant feature of the three codices. Furthermore, there is an undeniable relation among them, as they frequently present the same variations regarding the oldest manuscripts, so they probably originate from the same sub-archetype.

Therefore, the oldest version preserved of *Tereoperica* is included in the codex Paris, BNF, *latin 11219*.¹⁹ The copy of this medical compilation is extraordinary, as it has not survived any other codex with a similar content. Its copy dated from the ninth century was located in the *scriptorium* of the abbey of Saint-Denis.²⁰ But despite the fact that we keep six codices of the compilation, the only edition that exists at the moment was published by S. De Renzi in his *Collectio Salernitana*, under the title *Practica Petrocelli Salernitani*.²¹ The version here included is just a transcription of the manuscript *R*, the most recent one. The lack of a proper critical edition justifies the preparation of a new edition through the comparison of the six codices. The *Practica Petrocelli Salernitani* has been used in the first critical edition of *On Medicine* by V. Rose while in the most recent edition, prepared by A. Fraisse, the oldest manuscripts of *Tereoperica* were also used.

The manuscript tradition of *On Medicine* is weak and sometimes obscure.²² The oldest codex that preserves the complete text dates from the thirteenth century: Paris, BNF, *latin 6114 (P)*, and it presents, according to experts, many examples of normalisation given by the copyist, who corrects and simplifies

19 For detailed information on the codex, cf. Wickersheimer (1953: 173–189; 1966: 112–123), Beccaria (1956: 166–173), Vázquez Buján (1985; 1986: 63–82).

20 We owe the attribution to this abbey to J. Vezin, who through the interrogation symbol that appears in the codex discovered its origin. Cf. Vezin (1980; 1981).

21 De Renzi (1856: 4, 185–286).

22 The information about Cassius Felix's manuscript tradition is taken from Fraisse (2002: LXIX–LXXVI).

the original text. The manuscript Città del Vaticano, BAV, *latin 4461* (V) from the fourteenth century belongs to the same branch as *P*. It also contains the complete treatise and, although it is not a copy from *P*, it is clearly connected with it so that they seem to share a common ancestor. Both include many simplifications and summaries, but sometimes they contain a version quite close to the most reliable codices.

The manuscript Sankt-Gallen, Stiftsbibliothek, 105 (*G*), from the eleventh century, is the oldest one used by V. Rose in his critical edition of *On Medicine*. Despite being one of the most reliable, it contains many gaps, particularly in the second part of the text. Attached to this branch is usually the codex Cambridge, University Library, *Gg III 32* (*C*), from the fifteenth century; this contains a text of lower quality than *G*, but both seem to come from the same model, older than the family of *P*.

In the latest edition by A. Fraisse, two incomplete codices have been used too: the codex München, Bayerische Staatsbibliothek, *Clm 29136* (*M*), and the codex Paris, BNF, *latin 6882 A* (*P'*). The first one is the oldest testimony that we have from *On Medicine* because it dates back to the beginning of the eighth century. But, unfortunately, only two pages have been preserved including some parts of chapters 1, 2, 16, and 17. It is nevertheless striking that in these passages the version from the *Monacensis* is quite similar to the one presented by the codex *G* and also to the one of *Tereoperica*. The manuscript *P'* dates back to the ninth century and it is often the only one able to provide an adequate text but, unfortunately, we only retain certain extracts.

A. Fraisse has also taken into account in her critical edition four codices that contain certain *excerpta* from *On Medicine*. These testimonies, not used by V. Rose, can be very useful, because three of them date back to the ninth and eleventh centuries, so they provide important information.²³ The codex Sankt-Gallen, Stiftsbibliothek, *Sang. 752* (*G'*) in the part that contains the *Passionary* (*Liber passionalis*)²⁴ is particularly interesting. In fact, it contains several chapters that belong to *On Medicine*, but the striking thing is that the author

23 The *excerpta* used were from the codex Vendôme, Bibl. Municipale, *cod. 175* (*Vindoc.*), from London, British Library, *Arundel 166* (*Ar.*), from Berlin, Staatsbibliothek Preußischer Kulturbesitz, *Phillippicus 1790* (*Phil.*) and from Sankt-Gallen, Stiftsbibliothek, *Sang. 752* (*G'*).

24 The *Passionary* (*Liber passionalis*) presents very similar characteristics to those of *Tereoperica*. The oldest codex dates back to the ninth century too and it uses several sources to construct a therapeutic treatise. Many passages show a very interesting parallelism with *Tereoperica*, and so therefore, the idea of a common primitive source cannot be rejected. Cf. Fischer (2007).

of the *Passionary* (*Liber passionalis*) knows these chapters of *On Medicine* only through the *Tereoperica*; therefore, he does not have direct contact with Cassius Felix's work.

Among the testimonies of the indirect tradition, one of the most important is *Tereoperica* because it transmits an older text than the main codex of *On Medicine*. As we have just observed, Cassius Felix's work has been handled by the compiler of *Tereoperica*. Either he has acceded to *On Medicine* through a copy of the original preserved in many libraries, or through treatises and compilations that had already used *On Medicine*.²⁵

3 The Importance of *Tereoperica* for the Critical Edition of *On Medicine*

As we have seen, in the scenario of the manuscript tradition of *On Medicine* the codex *M* (*Clm 29I36*) transmits the oldest testimony preserved up to now. Anne Fraisse considers this codex the most reliable of the direct tradition, and the variants that it offers are usually chosen for the establishment of the text. Unfortunately, as has been aforementioned, only two pages have survived, so it is only useful for a couple of chapters.

One of these chapters, number 17 (*Against Parotids, Ad parotidas*), has also been chosen by the compiler of *Tereoperica*, as he has also included it in his treatise. Thanks to this happy coincidence, we are able to affirm that the version included in the codex *M* is similar to the one of *Tereoperica*. As a result, the last edition of *On Medicine* refers to the testimony of *Tereoperica* usually in this part of the text to confirm the variants of *M*, as opposed to the version of the most recent codices. We will see certain examples of this chapter in parallel with the text of *Tereoperica*; the first table gives some characteristics of the parotids and the second one suggests some recipes for its cure:²⁶

25 To confirm the importance of *Tereoperica* for the critical edition of *On Medicine*, cf. Sabbah (1994: 23–27; 1998b: 16), Fraisse (2002: LXXV–LXXVI). To examine further the history of *On Medicine* and its edition, cf. Sabbah (1985), Fraisse (2002: VII–LXXXI).

26 In this comparative table we have only included parts of the critical apparatus of *On Medicine*, copied from A. Fraisse's edition, because the important thing is to see the variants of the codices of *On Medicine* compared with the text of *Tereoperica*, which is very similar generally speaking in all its codices.

TABLE 1 *Cass. Fel. 17.1 and Tereoperica 17.1*

Cass. Fel. 17.1 (30 Fraisse)	<i>Tereoperica</i> 17.1
Maxime illis fieri solent qui ab aegritudinibus frigidam potionem praesumpserint . . . Sunt aliae malignae quae contrarietate supra dictarum intelleguntur. Contingunt iterum parotidae mox apparentes mox recedentes: nullis praecedentibus adiutoriis, salutis periculum referunt ad altiores pulmonum partes fugientes. They usually hit, above all, those who, after having been sick, took too early a cold drink . . . Others are malignant; these are recognised by opposition to those we have spoken about. Parotids arise repeatedly, sometimes appearing, sometimes disappearing: if no previous adjuvant treatment has been applied, they put their health in danger running away towards the depths of the lungs.	Maxime illis qui in aegritudine frigidam potionem accipere praesumpserint . . . Sunt alii maligni quod greci <i>cacoethes</i> appellant, quae contrarietate[s] supradictis intelleguntur. Contingunt istae parotidae, mox apparent et recedentibus istis, nullis praecedentibus adiutoriis, sed periculum significant, et altiores partes pulmonis irruentes. Above all to those who, during the disease, decided to take a cold drink too early. There are others malignant, called “cacoethes” by the Greek, these are recognised by opposition to those we have spoken about. These parotids appear sometimes and sometimes they are disappeared; if none previous adjuvant treatment has been applied, they put their health in danger running away towards the depths of the lungs.

maxime MVend.C: et m. PV || **qui ab aegritudinibus** (-ne Vend.) **frigidam potionem praesumpserint** Vend. Rose: qui ab ae. -da -ne pr. C qui -nem a frigida -ne sumpserunt P quia ab -nes -da -nes praesumperint M qui -nem a frigida potationem sumpserunt V || **malignae** MVend.C: magnae PV || contrarietate supra dictarum MVend.C: -trariae supra dictis PV || **parotidae** C: -daes M -des Vend.PV, Rose || **nullis** MVend.C: -li P ullis V || **praecedentibus adiutoriis** MVend.: ad precedentibus VC adiueros pre- P procedentibus adiutoriis Rose || ad Rose: ut C et Vend.PV M non legitur

Cass. Fel. 17.2 (31 Fraisse)

Tereoperica 17.2

Curationis tempore ad inchoantes parotidas medicamentum diaforeticum sic facies Cretae **argentalis partes** duas, **cimoliae** et sulphuris uiui partes singulas, salis modicum cum aceto simul teres et illines. Aliud. Butyrum **cum sale** tritum illines et super lanam impones et ligabis. Aliud. Plantaginis **folia** ante solis ortum collecta **cum pane in posca salsa infuso et cataplasmata**: sanat et disrumpit.

At the moment of healing, you will make a diaphoretic medicine against parotids at their beginning like this: you will crush all together with vinegar two measures of silver chalk, one of Cimolian earth and one of native sulphur, a pinch of salt, then you will apply it. Another treatment: you will apply some butter crushed with some salt and you will put over some wool and you will make a bandage. Another treatment: some plantain sheets picked before the sunrise and put in a cataplasm with some bread dipped into some salty water and vinegar: it cures and makes the parotids burst.

Item medicamen deaforitico sic facis cretae argenti **partes II cimolia** et sulphur tritum cum aceto inlinis.

Item butyrum **cum sale** tritum inlinis et lana succida super impones et ligabis.

Item plantagine **folia** ante solis ortum collecta **cum pane in pusca salsa infusa et cataplasmata** rumpunt et sanant.

Also a diaphoretic medicine, you will make it like this: two measures of silver chalk, Cimole and sulphur crushed, and you will apply it. You will also apply some butter crushed with some salt and you will put over some greasy wool and you will make a bandage. As well, some plantain sheets picked before the sunrise and put in a cataplasm with some bread dipped into some salty water and vinegar: it cures and makes the parotids burst.

Argentalis MVC, Jun.: -les *P* -riae Rose || partes PC: -tis VM non legitur || **Cimoliae** Rose: quimolie C **cymolae** M moliae P thimolee V || et MC: om. PV || **cum** PC: est VM non legitur || **folia** PC: -lium VM non legitur || **cum pane in posca salsa infuso et cataplasmata** Jun: c. p. in pusca s. -sa et -mata C c. p. in pusca (*alia litterae desunt*) et **cataplasmata** M c. p. in p. cum salsa infuso et -mate facto V c. p. in pusca faisa infuso et -mate facte P c. p. posca s. -so -mabis Rose

We should carefully study some of the variants in bold, such as *maxime, malignae, nullis, praecedentibus adiutoriis* or, in the second table, the sequence *cum pane . . . cataplasmata*, with the aim of confirming that the text of *Tereoperica* keeps the variants that also appear in the older manuscripts of *On Medicine*—those that are usually chosen for the edition. For these reasons we think that, at times, *Tereoperica* may be an accurate testimony of *On Medicine*, especially for those chapters only transmitted by the recent codices (PVC). Nevertheless, studying the critical apparatus we can verify that the version of *M* is not always chosen by the editor for the edition (e.g. *parotidaes, quia ab aegritudines frigida potiones praesumerint* “parotids; those who, after having been sick, took too early a cold drink”). She sometimes prefers the versions of more recent codices. This means that there is no manuscript with an always preferable version, but for each case, the variant can be chosen among the versions of all manuscripts, including *Tereoperica*.

In her edition of *On Medicine*, A. Fraisse mentions the text of *Tereoperica* especially for those cases where she bases her argument on it as the unique testimony or to contradict the variant chosen by Rose. From my point of view, she could have gone further and turned to this indirect tradition to reinforce the chosen version when it is only based on one codex. Indeed, she could use *Tereoperica* to propose an alternative text in the passages kept only in the codices *recentiores*.

I will present some examples, according to the sequence of chapters, where the editors of *On Medicine* take into account the testimony of *Tereoperica*:

In chapter 8 (*Against White Blotches on Skin, Ad maculas albas*), second paragraph (19 Fraisse), the codices PVC transmit *Si uero pro tumorem sanguis exierit, ex parte curari ostenditur* (“If blood runs instead of a swelling, it shows that it can be cured in this part”). But, the variant chosen by Fraisse and Rose was not *tumorem* (“swelling”), it was *humorem* (“humour”), transmitted exclusively by *Tereoperica*. The testimony of the medieval compilation becomes essential to understand the text correctly.

In the same chapter, third paragraph, we read in Fraisse’s edition (20 Fraisse):

Accipies cucumeres amaros agrestes maturos excitalos et in uas aeneum mittes.

Take bitter, wild and ripe but not very strong cucumbers and put them in a copper container.

In this case, Fraisse suggests a text different from all testimonies, even from Rose’s edition. The critical apparatus of *On Medicine* says:

*et siccatos C, et stipticos P, et scuticos V, et sciaticus Phil.^{ac}, et sciadicus Phil.^{pc}, et secabis Rose.*²⁷

The variant *excitalos*, included in the edited text, comes directly from the testimony of *Tereoperica*.

We can go on to chapter 32 (*Against Toothache, Ad dentium dolorem*), second paragraph (73 Fraisse):

Cerae modicum admisces et in uino diligenter contusis rotulas finges.

Add a little wax and once the ingredients are carefully ground in wine, make little balls.

Here, the verbal form *finges*, chosen by the editors, is based on the testimony of *Tereoperica* since Cassius Felix's direct tradition transmits very differing variants:

frigis PV, singulas C.

We can add to these cases others where the version of *Tereoperica* has helped the editors of *On Medicine* to stabilise the text. But the particularity of these new cases is that the editors of *On Medicine* have not mentioned the testimony of *Tereoperica*. For example, in chapter 6 (*Against Head Desquamation, Ad cantabriem capitis*), second paragraph (17 Fraisse):

Cum melle potui dabis pro comparatione pruritus.
Give it to drink in proportion to the itch.

This part of the text is only transmitted by the codices *recentiores* of *On Medicine PVC*, and that is the first reason why the testimony of *Tereoperica* can be useful. In fact, the text proposed by the editors, *pro comparatione*, appears only in the codex *C* while the others read:

pro acredine P, pro acretudine V.

²⁷ For the variant *et sciaticus* of *Phil.ac* I approve of the information contained in Fraisse (2002: 221, n. 66), as it does not coincide with that established in the critical apparatus, where *et sciatus* is transmitted.

The testimony of *Tereoperica*, which coincides with the one of *C*, confirms the appropriateness of the choice, above all if we consider the unreliable characteristics of the codex *C*.

Finally, we can mention another similar example, in chapter 30 (*Against Nose Bleeding, Ad fluxum sanguinis ex naribus*), fourth paragraph (70 Fraisse):

Sic enim patientis sanguinis detractioe facta.

Thus once you have drawn blood from the patient.

In this case again, only *C* transmits the sequence *sic enim* ("thus once"), and so does *Tereoperica*, but the codices *P* and *V* do not keep it. For these reasons, the testimony of *Tereoperica* deserves to be included more times in the critical apparatus.

4 Analysis of Some Passages

Having provided a catalogue of examples where the text of *Tereoperica* can be useful to confirm the versions chosen by Cassius Felix's editors, we will now analyse other cases where *Tereoperica* could suggest some changes in the critical edition of *On Medicine*.

We will start with one passage from chapter 6 (*Against Head Desquamation, Ad cantabriem capitis*), second paragraph (17 Fraisse):

Etenim acridinem humoris addulcat uel obtundit.

In fact, it soothes and calms the pungency of humour.

The question is regarding the verb *addulco* which, according to the *ThLL*,²⁸ appears only twice and precisely in Cassius Felix's work. The first occurrence is in the text that we have just seen, and the second one is in chapter 46.15 (133 Fraisse):

Et cum uino nigello addulcatam

And soothed with black wine.

In this case the manuscript tradition is far from being uniform because only the manuscript *C* transmits a form with the verb *addulco*, against *P* and *V* that transmit a form with the verb *obdulco* (*obdulcatum*). This verb is more common and usual because it appears in other authors, such as Caelius Aurelianus

²⁸ *ThLL* 1.603.50.

(*Chron.* 3.8.146) or Oribasius (*Eup.* 4.15.3 Aa). And it also appears on other occasions in Cassius Felix.²⁹ Curiously, one of the occurrences is in the last passage that we have seen of *addulcatam* (“soothed”):³⁰

Dandum etiam ieiunis aliquid sorbile quod humorem acrem et tenuem et asperum ualeat obdulcare et crassificare et lenire, ut est amyllum procuratum aut polentam ex aqua elixam et cum uino nigello addulcatam (Cass. Fel. 46.15 = 133 Fraise). . .

We should also give something easy to swallow on an empty stomach that can make smoother, denser and relieve the acrid, liquid and bitter fluid, such as treated starch or flour from barley boiled in water and soothed with black wine.

This passage has not been transmitted by *Tereoperica*, but this treatise keeps the text that we have just seen in Cassius Felix’s chapter 6.2, with the special feature that it presents the variant *obdulcat* instead of *addulcat*, the form transmitted uniformly by Cassius’ recent tradition (*PVC*).

Taking into account the lexicographic details of the verb *obdulco* and the unreliable direct tradition of *On Medicine* in one of the passages that transmits the infrequent *addulco*, it does not seem absurd to consider adequate the indirect transmission of *Tereoperica* (*obdulcat*). Therefore, it could be possible to replace the forms of *addulco* by the ones of *obdulco* in both passages of *On Medicine*.

We will now analyse one passage from chapter 8 (*Against White Blotches on Skin, Ad maculas albas*), paragraph 3 (20 Fraise):

Hoc purgabis humorem frigidum.
You will purge the cold humour this way.

The tradition of *On Medicine* is not uniform here either: *hoc purgabis* *V* *hoc -bit P* *depurgatum C*, while in *Tereoperica* we find: *depurgat humorem frigidum*. It is interesting to think about the alternation *purgo/depurgo*. If we take into account Cassius’ *Concordantiae*,³¹ we verify that the verb *depurgo* appears less than *purgo* (18 times the former–31 the latter). But it is striking that *depurgo*

29 E.g. 29.5 and 46.15. Cf. Maire/Fraise (2003).

30 It is worth questioning if the apparition of the form *addulcatam* in manuscript *C* is not an attempt of the copyist to differ from the form *obdulcare* used in the same passage.

31 Maire/Fraise (2003).

has as its direct object the substantive *humor* on two other occasions—as well as the one in this passage—while the verb *purgo* never appears attached to *humor*. This information leads us to think that Cassius Felix's original version could have been a form of the verb *depurgo*, instead of one of the verb *purgo*.

Finally, in chapter 30 (*Against Nose Bleeding, Ad fluxum sanguinis ex naribus*), sixth paragraph (71 Fraisse) we read:

Facto puluere nescienti naribus inice.

Once the powder is ready, without the patient knowing, put it in his nose.

In this passage, we pay attention to the imperative form *inice*. As this form only appears in codex C, we may propose the form *insuffla* (“insufflate”) as an alternative because it is the form transmitted by the codices PV of *On Medicine* and because the manuscripts of *Tereoperica* present *insufflabis* (“you will insufflate”). The verb *inicio* (“to put in”) usually appears in *On Medicine*, but this is the only occasion where it is related to the nose and to breathing. Indeed, *insufflo* (“insufflate”) appears less frequently in Cassius Felix, but it is always related to a treatment for the respiratory tracks.³²

5 Conclusions

After this short comparative analysis between Cassius Felix's work and *Tereoperica*, we may draw the following conclusions:

1. *Tereoperica* is a medical compendium whose composition dates back to the early Middle Ages. It was composed through the amalgam of several sources, from which the most remarkable is Cassius Felix's work, *On Medicine*; *Tereoperica* takes over the general approach of this work, including its philosophy and even the form of its chapters. The oldest complete codex of this compilation dates back to the ninth century, but it was transmitted in five other codices dating from the ninth to the thirteenth centuries.
2. The treatise *On Medicine* dates back from the fifth century, but its manuscript tradition is weak. The majority of the text is exclusively transmitted by codices dated after the thirteenth century, whose reliability is doubtful. That is the reason why it is usually necessary to turn to indirect tradition and to the *excerpta* in order to verify the chosen variants. *Tereoperica*

³² E.g. Cass. Fel. 33.5.

is one of the most important testimonies of the indirect tradition of *On Medicine*.

3. The comparative analysis among certain chapters of *On Medicine* and the correspondent text of *Tereoperica*—especially in those cases where Cassius' text counts on the testimony of the most reliable codices of the direct tradition—permits us to confirm significant coincidences between the version of the most reliable codices of *On Medicine* and the text of *Tereoperica*.
4. This methodological principle suggests that this anonymous compilation could have transmitted in other cases the most adequate variants, sometimes even the opposite to part or the whole direct tradition of *On Medicine*.
5. Finally, I must emphasise that during the elaboration of this paper only concrete extracts from *Tereoperica* and *On Medicine* have been studied comparatively. This means that we have not made an exhaustive analysis of every passage where *Tereoperica* shows parallelism with *On Medicine*. Therefore, and in view of the results, it would be necessary to examine the research of both texts comparatively in greater depth, in order to confirm or, maybe, contradict the conclusions drawn here.

Bibliography

- André, J. (1963), "Remarques sur la traduction des mots grecs dans les textes médicaux du v^e siècle (Cassius Félix et Caelius Aurélianus)," *Revue de philologie, de littérature et d'histoire anciennes* 37, 47–67.
- Beccaria, A. (1956), *I codici di medicina del periodo presalernitano (secoli IX, X e XI)*, Rome.
- De Renzi, S. (1856), *Collectio Salernitana, ossia documenti inediti, e trattati di medicina appartenenti alla scuola medica Salernitana*, 5 vol., Salerno ([2001] repr. with an introduction by Garzya, A., Naples).
- Debru, A./Palmieri, N. (eds.) (2001), "*Docente natura*" (Mélanges de médecine ancienne et médiévale offerts à Guy Sabbah), Saint-Étienne.
- Debru, A./Sabbah, G. (eds.) (1998), *Nommer la maladie. Recherches sur le lexique gréco-latin de la pathologie*, Saint-Étienne.
- Deroux, C. (ed.) (1998), *Maladie et maladies dans les textes latins antiques et médiévaux* (Actes du 5^e colloque international 'Textes médicaux latins', Bruxelles, 4–6 septembre 1995), Brussels.
- Duffy, J. (1984), "Byzantine Medicine in the Sixth and Seventh Centuries: Aspects of Teaching and Practice," in: Scarborough (ed.), 21–27.

- Ferraces Rodríguez, A. (ed.) (2007), *Tradición griega y textos médicos latinos en el periodo presalernitano* (Actas del 8 coloquio internacional 'Textos médicos latinos antiguos', A Coruña, 2–4 septiembre 2004), A Coruña.
- Fischer, K.-D. (1999), "‘A Horse! a Horse! My Kingdom for a Horse!’ Versions of Greek Horse Medicine in Medieval Italy," *Medizin-historisches Journal* 34.2, 123–138.
- (2003), "Der pseudogalenische *Liber tertius*," in: Garofalo/Roselli (eds.), 101–132.
- (2007), "Die Quellen des *Liber passionalis*," in: Ferraces Rodríguez (ed.), 107–125.
- Fraisse, A. (1998), "Place et fonction des hellénismes dans la dénomination des maladies chez Cassius Félix," in: Debru/Sabbah (eds.), 121–132.
- (2001), "Cassius Félix et le méthodisme," in: Debru/Palmieri (eds.), 91–104.
- (2002), *Cassius Félix. De la médecine*, Paris.
- Garofalo, I./Roselli, A. (eds.) (2003), *Galenismo e medicina tardoantica. Fonti greche, latine e arabe* (Atti del seminario internazionale di Siena, Certosa di Pontignano, 9 e 10 settembre 2002), Naples.
- Langslow, D.R. (1989), "Latin Technical Language: Synonyms and Greek Words in Latin Medical Terminology," *Transactions of the Philological Society* 87.1, 33–53.
- (1994), "Some Historical Developments in the Terminology and Style of Latin Medical Writings," in: Vázquez Buján (ed.), 225–240.
- López Figueroa, L. (2007), "Notas sobre la composición de la *Epistola peri hereseon*," *Voces* 18, 51–67.
- (2009), "La *Epistola peri hereseon* y el prólogo del comentario al tratado galénico *De Sectis*," *Galenos. Rivista di Filologia dei Testi Medici Antichi* 3, 91–105.
- Maire, B./Fraisse, A. (2003), *Cassii Felicis libri De medicina concordantiae*, Hildesheim.
- Manzanero Cano, F. (1996), *Liber Esculapii (Anonymus Liber Chroniorum)*, Ph.D. thesis, Madrid.
- Mazzini, I./Fusco, F. (eds.) (1985), *I testi di medicina latini antichi. Problemi filologici e storici* (Atti del I convegno internazionale 'I testi di medicina latini antichi', Macerata–S. Severino M., 26–28 aprile 1984), Rome.
- Nutton, V. (1984), "Galen to Alexander: Aspects of Medicine and Medical Practice in Late Antiquity," in: Scarborough (ed.), 1–14.
- Rose, V. (1879), *Cassii Felicis De medicina*, Lipsiae.
- Sabbah, G. (1985), "Observations préliminaires à une nouvelle édition de Cassius Félix," in: Mazzini/Fusco (eds.), 279–312.
- (1994), "Le *De medicina* de Cassius Félix à la charnière de l'Antiquité et du Haut Moyen Âge," in: Vázquez Buján (ed.), 11–28.
- (1998a), "Noms et descriptions des maladies chez Cassius Félix," in: Deroux (ed.), 295–312.

- (1998b), "Observations sur la transmission des textes médicaux latins," in: Debru/Sabbah (eds.), 11–18.
- Scarborough, J. (ed.) (1984), *Symposium on Byzantine Medicine*, Washington.
- Vázquez Buján, M.E. (1985), "Codicologie et histoires des textes médicaux. À propos du Codex Paris, Bibliothèque nationale, latin 11219," in Mazzini/Fusco (eds.), 75–88.
- (1986), *El "De mulierum affectibus" del "Corpus Hippocraticum". Estudio y edición crítica de la antigua traducción latina*, Santiago de Compostela.
- (ed.) (1994), *Tradición e innovación de la medicina latina de la Antigüedad y de la Alta Edad Media* (Actas del IV coloquio internacional sobre los 'Textos médicos latinos antiguos', Santiago de Compostela, 17–19 septiembre 1992). Santiago de Compostela.
- Vezin, J. (1980), "Le point d'interrogation, un élément de datation et de localisation des manuscrits. L'exemple de Saint-Denis au IX^e siècle," *Scriptorium* 34, 181–196.
- (1981), "Les manuscrits copiés à Saint-Denis en France pendant l'époque carolingienne," *Paris et Île-de-France. Mémoires* 32, 273–288.
- Wickersheimer, E. (1953) "Un manuscrit médical de l'époque carolingienne ayant appartenu à l'abbaye d'Echternach," *T'Hémecht. Zeitschrift für Luxemburger Geschichte* 6, 173–189.
- (1966), *Les manuscrits latins de médecine du Haut Moyen Âge dans les bibliothèques de France*, Paris.

The Author of Book 10 of the *Mulomedicina Chironis* and Its Greek and Latin Sources

Valérie Gitton-Ripoll

Abstract

The Basel manuscript (*B*) of the *Mulomedicina Chironis* (*Chiron's Cures for Mules*) (D III, 34), rediscovered by Sackmann in 1993, belongs to the same branch as the Munich manuscript (*M*) already edited by Oder in 1901—the difference between the two texts being the correction of several passages. In Book 10's *explicit*, *B* cites a certain *Claudius Kermeros ueterinarius* as the author. Epigraphic documents show that the name should be spelt with an H, as in *Hermeros*. Through analysing various passages from this text and comparing them to other similar passages from Pelagonius, we know that these authors shared a common source, which has since been lost, but could date back to the early Roman Empire.

Introduction¹

Although in late antiquity Greek and Latin treatises on veterinary medicine belong to two completely different linguistic traditions, these texts mutually influenced each other in light of countless translations produced in both directions. For instance, we see several Hellenisms in works by Latin authors and Latinisms in those by Greek authors. We also know that the ancient hippiatric tradition was not divided between Rome and Greece. In fact, quite the contrary: it was born from the continuous circulation of men and knowledge between the Empire's two regions and two languages, commonly through the agency of the military, to the extent that these writings often adopted the form of a compilation.² Studying the way in which veterinary literature is

※ Translated by Paige Mitchell, subsequently revised by Jon Wilcox. All translations from Greek and Latin are mine.

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2 Fischer (2009: 116) for Books 3 and 4 of the *MC*.

diffused ultimately brings to the fore the notion of this circulation of ideas, words, and texts. We are able to illustrate these exchanges by analysing Book 10 of the *Mulomedicina Chironis* (*Chiron's Cures for Mules*) (*MC*), a Latin treatise that dates back to the fourth century A.D.

The *editio princeps* of this text was transcribed by Oder in 1901 on the basis of a single manuscript, known as the Munich manuscript (henceforth abbreviated as *M*). Today, we have access to this text through an additional manuscript, discovered by Sackmann at the University Library of Basel (abbreviated as *B*).³ The *explicit* of *B* of the tenth and final book cites a certain *Kermeros* as the author, and the *explicit* of *M*, a certain *Hermeros*; most modern authors do not differentiate between these two readings.⁴ This point is important because this man has been accredited with being the author of Book 10 and often even of the entire *MC*.⁵ As evidence dictates, the name is Greek but the text is in Latin. There is, however, an inconsistency: the *incipit* of this same book indicates that Apsyrtus, a Greek veterinarian preserved in the *Hippiatrica* manuscripts, is the author.⁶ Therefore, for some time now we have assumed that Book 10 was a translation of other Greek hippiatric texts. What often happens in this area of study today is that researchers do not look beyond the name of the author, often ignoring, for instance, the century in which they redacted their texts. This is the case for the majority of authors cited in the *MC* (with the exception of Mago and Varro). To date, researchers have tried to reconstruct a relative chronology of the authors involved through analysing the use of loanwords and any mistakes made the moment these texts were translated, elements which help to determine the direction of the translation. Therefore, the aim of this essay is to examine the structure, the content, and the language of Book 10 in order to determine its sources and, in particular, its connection with the Latin writer Pelagonius, whose writings may have been the source of

3 Regarding the medical collection of the Basel library and its relationship with veterinary medicine, see Sackmann (1988). For a more detailed codicological description, see Cozar (2005: XXI–XXVIII), Sackmann (1993a: 117–119; 1993b: 5; 1997: 22), as well as Goldschmidt (Basel [October 10, 1939] written by F. Mittenhuber and Ueli Dill [2010]): www.e-codices.unifr.ch/en/description/ubb/D-III-0034, the website through which a reproduction of *B* can be accessed. The connection between these two manuscripts has yet to be studied. Our analysis of *B* demonstrates a relationship with *M* owing to the errors they share. This common origin is sufficiently distant allowing, subsequently, the two branches to diverge from one another in terms of omissions and additions, which are not the same on both sides.

4 Sackmann (1993a: 117, note 11), when he reinserts the *explicit*, simply adds (sic!) after *Kermeros*; Cozar (2005: X) presents the two names without making any decisions.

5 Oder titled his 1901 edition *Claudii Hermeri Mulomedicina Chironis*.

6 *Corpus Hippiatricorum Graecorum* or *Hippiatrica*: Oder/Hoppe (1924 and 1927).

inspiration.⁷ Prior to this, however, we will conduct an onomastic study of the name of Book 10's presumed author, Claudius Hermeros/Kermeros, in order to determine the accuracy of this information.

1 How the Author's Name Appears in Book 10

One difference between *B* and *M* is the author's name as it appears in Book 10's *explicit*: *Claudius Hermeros ueterinarius* vs *Claudius Kermeros*.⁸ Which of the two is correct? And who was this veterinarian, whose name is found nowhere else in the text or in any other treatises on veterinary medicine, whether in Greek or Latin? To this effect, several hypotheses have been proposed:

1. Max Ihm proposed that *Hermeros* was a misreading of *Emeritus*, a veterinarian cited in *The Art of Veterinary Medicine* (*Ars ueterinaria*) and in the *Corpus Hippiatricorum Graecorum* (*CHG*).⁹ Oder, in his preface, refutes this hypothesis on the grounds that *Emeritus* lived before *Pelagonius* (who incites *Emeritus* in his work) and *Claudius Hermeros* lived after *Pelagonius* given that excerpts of *Pelagonius*' writings were reproduced in Book 10.¹⁰ Without venturing too far into the chronological issues (which do, in fact, need to be reexamined), it seems to us that these names are sufficiently dissimilar to rule out this hypothesis.
2. The article "*Hermeros*" in Pauly-Wissowa's encyclopaedia presents the author as the Latin translator of a text originally written in Greek which would eventually become the main source used for the *Mulomedicina Chironis*.¹¹ The evidence used to support this argument is the inclusion of *Apsyrtus* among the sources mentioned. Today, this hypothesis has long been disproven insofar as a variety of works have shown that the

7 Pelagonius' text cited in this article is the edition by Valérie Gitton-Ripoll, to be published by CUF (Les Belles Lettres, Paris).

8 In Book 10's *explicit* in *B*, the following is inscribed (after §976): *Claudius Kermeros ueterinarius explicit feliciter 1495 XIII mensis marcii anno tercii alexandri papae VI* ("Veterinarian Claudius Kermeros completed this on March 13, 1496, the third year of Alexander VI's pontificate"). In *M*, we find: *Claudius hermeros ueterinarius liber decimus Explicit feliciter* ("Veterinarian Claudius Hermeros completed Book 10").

9 Ihm (1892: 17).

10 Oder/Hoppe (1901: XVII–XVIII, note 3).

11 Kroll (1913: 736).

MC was not a translation from Greek (with the exception, of course, of translated passages originally written by Apsyrus), but consisted instead of predominantly Latin sources.¹²

3. Oder, in the preface to his edition of the *MC*, claims that Claudius Hermeros was an unknown author who lived around 400, in which year, Oder states, the work was written. He would have been an emancipated Greek slave who belonged to the Claudii family and could have perhaps been the compiler of the entire *MC*, as is implied in the editor's title itself.¹³

To resolve this problem, we propose conducting an onomastic study to determine how often these names—*Hermeros* and *Kermeros*—appear in inscriptions, and when. We can surmise that the name does not refer to an occupation, like *Sotion*, “the saviour,” or *Chiron*, *Centaurus*, which refer to the mythical surgeon-healer figure.¹⁴

The name is Greek in origin, whether it is *Hermeros*, derived from the divine name *Hermes*, or *Kermeros* with a K, which is extremely rare in Latin (similar to the letter κ in κένταυρος, which became *c* in *centaurus*). This would mean, then, that *Kermeros* should appear in Solin's book, which lists all proper nouns in Greek, attested by Roman epigraphy and based on an analysis of the *Corpus inscriptionum Latinarum* (*CIL*) and other works.¹⁵ However, this book, which is the most widely documented, does not list *Kermeros*, while eighty-seven inscriptions do include the name *Hermeros*. It is plausible, therefore, that the scribe of the branch of *B* misread the first letter.

Do these eighty-seven inscriptions teach us something more about the carriers of this name? In all, only three associate the surname *Hermeros* with the forename *Claudius*.

1. *CIL* 6.4271, dating back to the time of Tiberius or Nero, is a stela, which has been broken, and only the end of the name and surname, in the dative case, are legible: claVDIO herMEROTE.
2. *CIL* 15.930, dating back to the same era, lists several inscriptions, on brick or tile, all of them carrying the same name in the genitive case: TI. CLAUDI HERMEROTIS.
3. *CIL* 6.6695 is a stela dating between 50 and 150 A.D., which was dedicated by a Tiberius Claudius Hermeros to his wife Flavia, who died at the

¹² Hoppe (1933: 44–45); Fischer (1985: 255–257).

¹³ Oder/Hoppe (1901: XVII–XVIII).

¹⁴ Gitton-Ripoll (2005: 340–341; 2008: 212–214).

¹⁵ Solin (2003²).

age of twenty-two years, seven months and thirteen days: DIS MANIB. FLAVIAE PTOLOMAIDI TI. CLAVD. HERMEROS CONIVG. FECIT VIXIT ANN. XXII M. VII. DIEB. XIII.

Literary texts also contain traces of two *Hermeros*: one in a text by Petronius and another in one by Martial, which establishes a date of the second half of the first century A.D.¹⁶ It must be noted, however, that nothing allows us to formally associate any one of these *Hermeros* from the first or second centuries with our veterinary doctor.

The surname *Hermeros*—accounting for eighty-six occurrences when it appears alone and three occurrences when it appears with the forename *Claudius*—is largely attested in inscriptions and literature dating to the first and second centuries A.D. What is more, it is the name of a slave or an emancipated slave. According to Solin, of the eighty-seven *Hermeros* listed, only one is *ingenuus* (“free-born”), forty-three are uncertain, thirty-nine are slaves or freedmen, and four are most likely freedmen. After their emancipation, they would have kept their family name, which was often associated with their foreign origins, and took on the first and last name of their masters, in this case, *Tiberius Claudius*.¹⁷ This was the case for the emancipated slaves that were once under the roof of the Claudii family, and given that their names were transferable, it is possible for a *Claudius Hermeros* to have appeared after the High Empire. Solin explores the number of times the surname *Hermeros* appears up to the fourth century, and it proves to be extremely rare: he only finds one inscription in the third century and one in the fourth, both mentioning a *Hermeros* without a first name. Neither mentions the occupation doctor or veterinarian.

In general, there are two hypotheses for the date of this *Hermeros*. The first, already mentioned above, is that there was a writer or compiler of Book 10 from late antiquity. It is quite possible that this man worked on the entire *MC*.¹⁸ This hypothesis is based essentially on the presence of the name *Claudius Hermeros* in the *explicit* and on the similarities between the *MC* and Pelagonius.

The second hypothesis is founded on the frequency of the name under the High Empire. It is possible that our veterinarian wrote a treatise and that this treatise was reproduced in the *MC*, but fragmented, exactly the same way as Apsyrtus’, whose name can also be found on inscriptions from the first and second century, but seldom later on. This, however, does not formally prove

16 Petron. 52.3 (a gladiator) and Mart. 10.83.8 (a slave).

17 See in the same volume (S. Barbara’s contribution), a *Tiberius Claudius Menecrates*, physician under Tiberius, Claudius, and Nero.

18 Hoppe (1925: 20).

its age. Another argument for dating the name within the High Empire is the inclusion of the title *ueterinarius* which is attached to the name *Hermeros*. *Veterinarius* belongs to the language spoken under the High Empire, and it was replaced by *mulomedicus* as of the third century, but had the same meaning, corresponding to ἵππιατρός in Greek.¹⁹

So, who is the true author of the last book of the *Mulomedicina Chironis*? Is it a final book that could have been written after the others, as Hoppe has argued?²⁰ Was Apsyrus the author, or was it *Hermeros*? Was *Hermeros* the original author or simply a compiler that came later? We will now look at the composition of Book 10 through another lens, examining the book's content, possible sources, and language.

2 §961–976 of Book 10: Content, Sources, and Language

A *Pelagonius Excerpts?*

Book 10's *incipit* and *explicit* include §961 to 976 across two manuscripts. The *explicit* concludes the *MC* in *B*; §977–999 are relegated to Book 9, between 930b and 930c, in a visibly erroneous way, but already ancient, given that §977, which lacks the beginning, was inserted in the middle of a sentence of 930b. Clearly, Book 10 is not as extensive as the others, which contain a hundred or so paragraphs each. Moreover, this is not exclusively a hippiatric book: it begins with treatments for horses, but then continues with treatments for cattle, mules, sheep, and goats.

Hoppe noted a similarity between §965 and §18 from Pelagonius' writings on the treatment for glanders (*morbus*, a disease that affects equidae), consisting of a potion made from stork ashes.²¹ The text is not copied word for word from Pelagonius, which led Hoppe to think that there may have been an intermediary step. Hoppe's argues that there is a considerable difference in the terms used to describe the age of the bird to be sacrificed.

19 Adams (1992: 90–95). Pelagonius' use of *ueterinarius* in the title of his work in the middle of the fourth century is an archaism, given that we find *mulomedicus* as early as the *Edict of Diocletian* 7.20, see Giaccherio (1974, 1: 150).

20 Hoppe (1925: 18) asserts that no traces of Vegetius' work can be found in the books from Book 8 on, even though Vegetius had been largely inspired by Chiron in his veterinary medical research.

21 Hoppe (1925: 19–20); this concordance had also been noted by Oder, in the *apparatus criticus* of §965.

- Pelagon. 18: *ciconiam quae adhuc non stat* (“a stork that is still unable to hold itself up”), also supported by Veg. *Mulom.* 1.17.15, who says he was inspired by Pelagonius: *pullum ciconiae nondum adhuc stantem* (“a young stork is still not yet unable to hold itself up”).
- Chiron 965 M: *ciconinas iam paene uolantes* (“young storks that barely know how to fly”); and B: *ciconinos iam bene uolantes* (“young storks that know how to fly well”).

For Pelagonius, the birds are but nestlings, for Chiron, the birds are proficient pilots. Yet Pelagonius’ two Greek translations contained in the *Hippiatrica* present the same alternation:

Πελαργοῦ νεοσσὸν μηδέπω πτῆναι δυνάμενον / στῆναι M (*Hipp. B.* 4.6)
A young stork still unable to fly / hold itself up.

Hipp. B. reflect Chiron’s reading (πτῆναι = *uolantes*), whereas *Hipp. Par.* are often more faithful, reflecting Pelagonius’ text (στῆναι = *stat*). The error made in *Hipp. B.* can be explained as a mistake in the transcription of the first letter in the Greek manuscript: π/σ-τῆναι. According to Hoppe, the similarities between Chiron and Pelagonius are due to the retranslation into Latin by Claudius Hermeros (reversed) of Pelagonius’ Greek translation within the branch from which the Berlin manuscript originates (πτῆναι > *uolantes*). This passage would have thus undergone two translations, finally coming back to the original language in which it was written along with the ensuing changes.

Based on this single example, Hoppe believes that Claudius Hermeros was the translator of the Greek version of Pelagonius, which would take up all of Book 10. But this extrapolation is impossible for several reasons. First, the parallels that have been drawn between Book 10 and Pelagonius’ *Ars ueterinaria* take into account only four paragraphs of the sixteen contained between the *incipit* and the *explicit*.²² And of these four, only two show a similarity to the *Hippiatrica* (Chiron 965 and Chiron 971), in which no other mistake of this kind can be found. Furthermore, numerous dissimilarities prove that the paragraphs by Chiron are not based on a Latin translation of Pelagonius’ Greek text. Let us take the following *loci similes* (the dissimilarities are underlined).

22 We are referring to Chiron 965 (Pelagon. 18), 971 (Pelagon. 374–375), 974 (Pelagon. chapter 13), 975.4, and 980 (Pelagon. 337). There are other similarities in ensuing paragraphs of this chapter, after the *explicit*: Pelagon. 17 = Chiron 994; Pelagon. 124 = Chiron 983; Pelagon. 184 = Chiron 988; Pelagon. 207 = Chiron 985; Pelagon. 409 = Chiron 995, but also comparable to Chiron 294.

Item. Potio aestiualis. **Croci**—I infundis in uino, tracanthi—III infundis in aquam calidam, et teris simul diligenter; quibus adiungis **porrum uirginem** et apium uiride et iterum in se diligenter teris; quibus commiscet portulacae sucum et lac caprinum, oua, **oleum rosacium**, **mellis**—III **et passi sext.** et uini ueteris quod sufficiat, et dabis per cornu triduum (Pelagon. 374).²³

Another summer potion: add one ounce of saffron to wine, three ounces of tragacanth to hot water, and carefully crush them together. Then add leeks and fresh ache to the mixture and carefully blend the ingredients together once again; add purslane juice, goat's milk, eggs, rose oil, three ounces of honey, a sester of straw wine, a sufficient quantity of old wine, and apply this using a funnel for three days.

The following two texts offer the same recipe: the first is a Greek translation of the previous Latin text; the second contains similarities, which will be explained further on.

Προπότισμα θερινόν. κρόκου γο α' εἰς οἶνον ἐμβαλὼν καὶ τραγακάνθης γο γ' εἰς ὕδωρ θερμόν, ἔπειτα λειώσας, πρόσμιζον τούτοις πράσου κεφαλὴν καὶ σέλινον χλωρόν, καὶ πάλιν ἐν ταύτῳ λειώσας, πρόσβαλε καὶ θρίδακος χυλοῦ ὀλίγον καὶ γάλα αἴγειον μετὰ ἐλαίου ῥοδίνου, μέλιτος γο δ', ἐψήματος ξέ. ἕνα, οἶνου παλαιοῦ τὸ ἀρκοῦν. ἔπειτα δίδου διὰ κέρατος ἐπὶ ἡμέραις τρισί (Hipp. B. 129.46).

Potio aestiua. Lactem caprinum, oua terna in singulis capitibus, ita ut tres ista mixta habeant sext. I, quod singula capita accipere debent; adiuncta portulaca et **magma croci** et dragantum, si autem magma croci non fuerit, crocum misces aestimatione facta singularum harum specierum pro modo sext. I. Huic adicies uini ueteris in singula capita quartaria singula (Chiron 971).²⁴

23 Aestiualis *Gitton*: estiualis *E* aestiua *R* || infundis¹ *E*: -des *R* || in *R*: á *E* (= cum *male lectum*) || tracanthi *R*: tracanti *E* || infundis² *E*: -des *R* || aquam calidam *R*: -a -a *E* || uiride *R*: -dem *E* || commiscet *R*: miscis *E* || portulacae *E* Vegetius: perclacae *R* || passi *E*: passim *R* || cornu *R*: cornum *E* || triduum *R*: triduo *E*.

24 Habeant *M*: -bent *B* || adiuncta *Gitton*: adiumenta *MB*, cf. adiungis Pelagonius || magma croci *M*: croci magna *B* || magma croci² *M*: crocomagina *B* || sext. I *M*: sextarii *B* || huic *M*: huius hinc *B* || uini ueteris in *Bücheler*: in ueteris *M* and *B*.

Summer potion. Goat's milk, three eggs each per head, so that these three ingredients mixed together make up one sextarius (roughly, a pint), which is the dose per head; with the addition of purslane, the residue left from pressing saffron oil, and tragacanth; if no saffron oil residue is at hand, mix in saffron according to your judgement so that the total will be one pint. Add a quarter of a pint of old wine per head.

Portulacae sucum, or "purslane juice" (*Portulaca oleracea* L.), from Pelagonius' original text, is rendered erroneously in *Hipp. B.* by θριδάκος χυλοῦ ὀλίγον, "a bit of lettuce juice" (*Lactuca sativa* L.) (although both are served on salads), and this error is, surprisingly, corrected in Chiron's text: *portulaca*. Furthermore, Pelagonius' recipe includes eggs, which are omitted from the Greek translation, but reappear in Chiron alongside *oua terna*, an additional detail absent in Pelagonius. Chiron's source was therefore not the Greek translation in this passage.

Conversely, the idea that Pelagonius derives from Chiron's Book 10 is also improbable. A second look at these paragraphs (the dissimilarities are in bold) reveals that the order in which the ingredients are listed is not the same. Some ingredients are also missing from Chiron's list: leeks, rose oil, honey, straw wine. There is even a difference between certain ingredients: *croci* in Pelagonius corresponds to *magma croci* in Chiron and is accompanied by a long commentary absent in Pelagonius.

Another passage that deviates between Pelagonius and Book 10 is Pelagonius §337 (*ad omnes tumores siue duritias*, "for all types of swelling or calluses"), which is similar to Veg. *Mulom.* 3.28.26 (*ad tumores siue ad duritiam*, "for swellings and calluses") as well as to *Hipp. Par.* 1190 (of which only the title remains). It is also not very different from Chiron 975.4 (or 980), as the following details illustrate: the indication (*ad glandulas*, "for the ganglions"); the ingredients (*iuisi radicem decoque*, "boil a marshmallow root," while Pelagonius and Vegetius had *hibiscum uino decoquis*, "boil marshmallow in wine": *radicem* corresponds to *uino* (Pelagonius, Vegetius);²⁵ and the formula of administration (*in panno induces et impones*, "spread on a cloth and apply" instead of *et sic uteris*, "use in this manner" in Pelagonius and Vegetius) are completely different.

There may exist *loci similes* between Chiron and Pelagonius, but these similarities are not the result of one author borrowing directly from the other, but

25 Pelagon. 337, Chiron 975.4, Veg. *Mulom.* 3.28.26.

instead originate from a source that the two authors shared.²⁶ It must be noted that the texts written by these two Latin authors do not coincide perfectly and that the variations are perhaps proof of a possible misreading of a common source: for example, a recipe to treat horse glanders, which, for Pelagonius, involves grapes (*uuae*), but for Chiron and Vegetius involves eggs (*oua*).²⁷ In addition, Pelagonius never commented on small livestock, while Chiron did (975.3); nor did he write about cattle, and thus decided to adapt Columella's bovine treatments to treat horses. Pelagonius' style differs as well: Chiron 975 writes *dabis, bibant*, ("administer something to drink") or *dabis, ut edant* ("administer something to eat"), while Pelagonius always places *dabis* last: *hanc potionem dabis* ("administer this potion").

B The Common Source

What is the subject of Book 10? The first words of the chapter, *de primis pecoribus*—an expression taken from Columella—are to be understood as "bovines or equidae," and do not include ovines, caprids, suidae, and canidae.²⁸ Because horses and cattle are treated alternately, the author is obliged to specify the species each time. For instance, hippiatrics is the focus of the beginning of Book 10 with the words *umenta, equi, equae, mulae*,²⁹ followed by a digression in §973.3 to 975.3, sections which deal with bovines, ovines, and caprids. This digression could be an excerpt from another treatise that was inserted or a second part on cattle.³⁰ The diseases cited in Book 10 are few and far between: we find, in order of appearance, *purgatio capitis* (961, "purgation of the head"),

26 Fischer (1985: 259), and Hoppe (1928: 7), who envisioned this common source for the entire *MC* and not just for Book 10.

27 Pelagon. 207, *Hipp. Par.* 1097 (*CHG* 2 Oder/Hoppe [eds.]), *Hipp. B.* 27.7; Chiron 985; Veg. *Mulom.* 2.134.5, see Ortoleva (1998: 25–26).

28 The preface of Columella's 6.6 was used in Chiron 946, and the use of *pecus* in this particular sense is found again in Chiron 989. For the meaning of *pecus*, in hippiatric and buiatric literature, see *ThLL* s.u. *pecus* p. 951–952 (Hillen). For details about Columella's influence on veterinarian literature, see Adams (1991: 73–74).

29 *MC* 962, 963, 965, 966, 968, 973.

30 The formulation of §975: *boues (oues, caprae) ne aegrotent* ("to prevent cattle [sheep, goats] from getting sick") belongs to Cato's formulation methodology ([*Agr.* 72: *boues ne pedes subterant* "to prevent cattle from wearing down their hooves"]; *Agr.* 96: *oues ne scabrae fiant* ["to ensure that the ewes do not become scruffy"]; *Agr.* 103: *boues uti ualeant* ["to ensure that cattle are healthy"]) and from *Curae bouum* (*Cures for Cattle*) by Pseudo-Gargilius. The verb *aegrotare* ("to be ill"), which is too imprecise, is not used by Pelagonius or by Vegetius (except in *Mulom.* 2.139 in a passage that was probably inspired by *Curae bouum*). Moreover, we do not find any vulgarisms in this paragraph.

exile corpus (962 “emaciation”), *ad morbida iumenta et ad comitalem* (963, 967, “for glanders and epilepsy”), *ad morbum* (965, 966, “for glanders”), *ad tussem* (968, “for coughs”), *ad suffusionem* (969, “for laminitis”), *potiones aestiua/hiemalis* (970–972, 976b, “summer and winter potions”), *ad ranunculum* (973b, “for ranulas”), *ad glandulas* (975d, “for the ganglions”), *ad articulos uel ad tumores* (976, “for the fetlock joints or swelling”). In general, the names are simple, Latin, and non-Greek. Only a small number of disorders are listed and the symptoms are very seldom described. But what is most remarkable is that Book 10 proceeds in more or less the same way as Pelagonius in the outline of his treatise: 1 *ad morbum* (“for glanders”), 2 *ad maciem* (“for emaciation”), 6 *ad tussem* (“for coughs”), 16 *ad suffusionem* (“for laminitis”), and 28 *potiones* (“potions”), an interruption dealing with cattle, sheep, and goats, 5 *ad glandulas* (“for the ganglions”), and 15 *ad articulos* (“for the fetlock joints”). Therefore, it is possible that Book 10 comprises excerpts from an earlier bovine-hippatriac treatise whose structure was roughly the same as the one adopted by Pelagonius.³¹

It is also important to underline the element of magic like the use of ingredients that carry strong magical implications, including stork ashes, the urine of a virgin child,³² a washed menstrual cloth,³³ and a live mouse.³⁴ We also find a magical formula to dislodge a foreign body from the throat.³⁵

The style of Book 10 poses a problem. Vulgarisms, for instance, exist alongside an elegant technical language from the first century, as instituted by Celsus and Columella. For vulgarisms, *per* is followed by the ablative or the accusative,³⁶ and *mittere in* is followed by the ablative in some cases, but the accusative in others.³⁷ We find the accusative where we expect the ablative (*in pilam tundes*); the dative is replaced by *in* + ablative (*in singulis*

31 But not the same as Chiron's or Vegetius'. Emaciation, in particular, which is touched on in Pelagonius' chapter 2, is, according to this author, due to a deficiency in diet; for Chiron and Vegetius, however, emaciation is never treated on its own, it is strictly considered a symptom of an illness, especially *maleus* in Chiron 148, 174, 186 and 195, along with other diseases found in Vegetius. Only in *Mulom.* 1.56.21 (cf. Pelagon. 30) and in *Mulom.* 4.1.11 does Vegetius state that all bovine diseases come from emaciation.

32 Chiron 963. Cf. Pelagon. 471, Chiron 55, and 788.

33 Chiron 969.

34 Chiron 968, cf. Colum. 6.17.5.

35 Chiron 974; later on (988), the text offers a treatment for *fascinatus* (“enchanted”) horses.

36 Chiron 963 *per naribus* in *M* and *B*; 961 *per nares* in *M* / *per naris* in *B*.

37 *In uasculo* (“in a vessel”) 963, *in aeneo uel stagneo* (“<in a vessel/pot> made from bronze or from an alloy of silver and lead”) 962, *in uino ueteri* (“in old wine”) 965; *in eodem ouo* (“in the same egg”) 963 / *in ollam mittis* (“put in a pot”) 965.

umentis dabis);³⁸ *idem* replaces *hic*.³⁹ The vocabulary is subject to changes in declension: *cornu* ("funnel") to make someone drink, is sometimes neutral and other times masculine.⁴⁰

It must be noted, however, that the lexical style does not reflect the general style of hippiatric works of late antiquity. Certain expressions are hapax in the *MC*, and yet, we find them in texts written by first-century medical authors: the usage of *pecus* in the sense of "large livestock,"⁴¹ *uasculum* for "vessel,"⁴² *pigmenta* for "drugs,"⁴³ *corpus* to refer to a pasty medication that was administered to horses in ball form (*offas*),⁴⁴ verbal expressions such as *reueri ad se* ("to recover"),⁴⁵ and *suspiciere morbum* ("to suspect an illness").⁴⁶

The content also exhibits a certain antiquity. The dosage is indicated per head (*in singulis umentis/capitibus*, "for each animal"), whereas in literature that appears later, this detail is implied. The measurements can be counted in eggs: *mittis liquaminis optimi ouum unum* ("place an egg of the best garum").⁴⁷ Treatments using cauterisation, which saw great success as of the fourth century, are almost not even mentioned.⁴⁸ The disease known as *ranunculus*, which can perhaps be compared to *ranae*, referred to by Columella and involving excrescences on the tongues of bovines, is no longer treated by Pelagonius

38 We find the dative in Cato *Agr.* 70: *per triduum de ea potione unicuique boui dato* ("give this potion to each bovine for three days"), and in Colum. 8.4.5; the accusative in Chiron 954: *in singulos boues dato*, ("give to each bovine"), Pelagon. 362 and 455; the ablative in Chiron 964, 971, 990 and in Pelagon. 373.

39 Chiron 963.

40 *Per cornu* 967 in *B*; *per cornum* 967 in *M*; 968 *singulos cornos* in *M* and *B*.

41 Chiron 961, see note 28.

42 Chiron 963. *Vasculum* is corroborated in Cato, Varro, Columella, Pliny, but the term disappears in the fourth century.

43 Chiron 965b. The word is found in Scrib. Larg. 21 and 97.

44 In hippiatric literature, *corpus* always refers to the horse's body, but it is used in the culinary sense in Apicius. We also find other loanwords from the technical lexicon of cuisine in Book 10: *oua frangere* ("to break eggs"), *uasculum* ("vessel").

45 Chiron 962, cf. Cels. 3.23.2 and 3.21.12. However, Pelagon. 30 prefers to employ *recipere integrum corpus* ("to regain a healthy body") and Veg. *Mulom.* 1.56.21 *reuocari ad corporum firmitatem* ("to recover bodily strength").

46 Chiron employs the verb in 965, the noun *suspicio* in 187 and *suspectio* in 168 in the same context: a suspicion of the illness is cured by performing bloodletting, which eliminates the contamination (*coinquinatio*). *Suspicio* in the sense of "hint" of an illness is found in Cels. 2.10.10 and in Scrib. Larg. 122 and 200.

47 Chiron 963 (with the omission of the conjecture *obolum* to return to the text of the *ouum* manuscripts).

48 With the exception of Chiron 995.

or Vegetius.⁴⁹ Water retention is described in 974b,⁵⁰ but its Greek name does not appear, like in Apsyrtus, and this disorder is referred to by the paraphrase *solent aquam intercutem habere* (“they habitually have water under the skin”) as employed by Cicero, Lucilius, and Columella.⁵¹ Initially designating human water retention, the word *hydrops* appears in veterinary medicine for the first time in Columella’s works, in reference to goats. It is not until later texts that we see *hydrops* applied to horses.⁵² And it was around the first century when the confusion between bovine and equine treatments within a treatise or book started to occur.⁵³ Soon after, however, writers in veterinary medicine began to separate the two, dedicating distinct writings to each species.

The most surprising particularity found in the pages of Book 10, however, is the name of the disease *morbus comitialis* (§963, 967), meaning epilepsy, which was generally referred to by horse doctors during the fourth century with the terms *epilepticus*, *caducus*, *iera nosos*, *spasmus* (although the latter term does not only refer to epilepsy). By contrast, *morbus comitialis* is the preferred term by doctors and the general public to refer to epilepsy in humans. This ailment is completely omitted by Pelagonius in *Ars ueterinaria*, and rightly so, because it is extremely rare in horses.

This source, which was shared by Chiron and Pelagonius, is thus decidedly ancient. Was it originally written in Greek or in Latin? The fact is no conclusive evidence has been found that points to either. Admittedly, Book 10’s *incipit* cites Apsyrtus,⁵⁴ but no parallel is drawn with the author’s excerpts

49 Chiron 973b, if Oder’s conjecture, *ad dracunculum* > *ad ranunculum*, is correct. This disease is only evoked twice in the *MC*: in 950, in a section of Book 9 that was placed under the patronage of Columella, and in 973. Adams (1995: 337 and 563) believes that with these two examples, the term was preserved in late Latin. We believe that this theory is questionable, and feel that these two instances were probably taken from an ancient source.

50 §974b describes the paracentesis by which the water found in the skin can be extracted; we find this paracentesis in the context of water retention in horses in Pelagon. 211 and Chiron 401–402, who were both inspired by Apsyrtus (*Hipp. B.* 38.1).

51 Cic. *Off.* 3.92; Lucil. 28.764; Colum. 7.7.3: *cum distendetur aqua cutis, quod uitium Graeci uocant ὕδρωπα* (“when water swells up the skin, a disorder that the Greeks call *hydrops*”).

52 In the works of Pelagonius and Chiron; Apsyrtus does not employ this word, but *παρέχυσις* or *ὑδρεος* instead. See Adams (1995: 283–284).

53 For example, Columella’s Book 6 is about horses and cattle. Similarly, the paracentesis that is used to treat water retention in cattle found in Chiron 974 has an equivalent in Chiron 401–402 and Pelagon. 211, but for horses.

54 *Apsyrtus feliciter incipit liber decimus* in *M*; the *incipit* is poorly divided in *B*: *explicit Chyronis Centauri et absyrtus feliciter* f^o 217^v (Book 9), *incipit liber decimus* f^o 218^v.

left in Greek. We find very few Hellenisms,⁵⁵ the measurements are in Latin,⁵⁶ the botanical Latin-Greek conversions are given first in Latin, then in Greek: 967 *algallico, hoc est conferma graece sinpito* (*symphytum*), “common comfrey, that is to say *conferma*, and in Greek, *symphytum*”; 968 *silis montanum, quod dicunt petrosillen* (“*seseli tortuosum*, which we call parsley”);⁵⁷ and above all, the chapter begins with a treatment deemed extremely important in Roman veterinary medicine, *purgatura capitis*, the (internal) cleansing of the head, of which we find very few traces in the *Hippiatrica*.⁵⁸

How can we explain the fact that the *incipit* cites Apsyrthus as a source? Could it have been an erroneous accreditation that was made at a later date, or perhaps even deliberately modified? It must be noted that forgeries permeate hippiatric literature, especially if the author was revered: for instance, Pelagonius §278 attributes to Apsyrthus an incantation that was obviously written in Latin;⁵⁹ the *Geoponica* 16.2⁶⁰ credits Pelagonius for a chapter on the characteristics of the horse, when its content utterly conflicts with what the author says on the topic in his Latin treatise. One possibility is that the source material for Book 10 could have been placed under the patronage of Apsyrthus at some point after it was written, in a bid to raise the prestige of the *œuvre*, given that Apsyrthus was the most widely recognised amongst Greek veterinarians—the bar would have been raised even higher if other translations of Apsyrthus already existed in Latin.

This Latin source, written earlier than the 4th century, whose style and language are often archaic, is closely connected to other books of the *MC*, in terms of form and content. The following is an example: the treatment theory accord-

55 Disregarding the Greek phytonyms (which are *simphitum* [*Symphytum officinale* L.] 967, *petrosillen* [*Seseli tortuosum* L.] 968), we find the following Hellenisms: Greek accusatives in 962, *cotulas* (a small vessel, as a measure, equal to c. 0.27 l.) in 963; the Latin formulation is preferred: *liquamen* rather than *garum* (this two terms design a type of fish sauce [Fish dishes] that was used as a spice in a great many ancient dishes, among other things, because of its high salt content).

56 *Sextarius* (= c. 0.54 l.), *ciatus* (= c. 0.045 l.), *emina* (= c. 0.27 l.) are habitually used in Latin texts, even if the latter two were originally Hellenisms.

57 *Petrosillen* in *M*, *petrosilen* in *B*, *petrosillon* in *Oder*. The Greek form has not been corroborated, cf. André (1985: 195).

58 Chiron 961. Κεφαλῆς κάθαρσις, which is equivalent to *purgatura capitis*, is rarely cited in the *Hippiatrica*, but the majority of the time in the translations of Pelagonius: *Hipp. B.* 103.13 (*Par.* 652) = Pelagon. 48; *Hipp. B.* 103.17 (*Par.* 656) = Pelagon. 52; *Hipp. B.* 103.6 = Apsyrthus *Hipp. Cant.* 83.1; Apsyrthus *Hipp. Cant.* 83.4, with no known parallels.

59 Gitton-Ripoll (2009: 108–110).

60 Georgoudi (1990).

ing to cycle (*ciclo*) is implemented by Chiron in 249–250; according to him, the theory is to be applied to a certain number of disorders, including *caduci* (“epileptic”) and *morbidi* (“glanderous”) (255). It is important to note that we find the same association of disorders (epilepsy and glanders) in Chiron 963 (and only here), as well as the same cyclical treatment (alternating days based on a cycle of three) and the use of garum and balls (*offas*).⁶¹ This common source was, thus, also used for the other *MC* books.

3 Is Pelagonius Truly the Author of §965?

We are confronted by a problem when it comes to Pelagonius’ involvement. If we assume that the similarities between Pelagonius and Book 10 can be explained by two factors, namely a common source that was written prior to both texts, and a subsequent translation (which would only be represented by §965), why would this text have been incorporated into the collection and not include Pelagonius’ name as a source? This seems to be inconsistent with everything else, and therefore, we must ask ourselves if §965 is truly a translation of the *Hippiatrica* as Hoppe had suggested. In fact, nothing could be more uncertain. In comparison to its supposed original text in Greek, some text has been omitted in the Latin, which could still be admissible, even though many of these omissions are quite considerable.⁶² However, other additions have also been made,⁶³ and there are differences in content as well. For example, the vessel is made of glass in the *Hippiatrica*, and in Chiron, the material is not important (*in quolibet uaso*); *per triduum* (“for three days”) in Chiron, is meant to translate ἕως ἂν ὑγιάνῃ (“until cured”). There are also a number of impossible indications: in Hoppe’s famous equivalent text πελαργοῦ νεοσσὸν μηδέπω πτηνῆναι δυνάμενον (“a young stork that is still unable to fly”) = *ciconinas iam paene uolantes* (“young storks almost already able to fly”) *iam paene* (“almost already”) could not be a translation of μηδέπω, which means *adhuc non* (“not yet”) (Pelagonius). The two texts, Pelagonius’ Greek text and Chiron’s Latin text, are far too different for one to be the translation of the other in either

61 The association of glanderous and epileptic patients can only be found in these two texts. The remedies for these conditions are far too different to establish a direct link between the two passages.

62 ζώντα, “(place it) alive,” καὶ ταύτην γύψω περιχρίσας βάλλε εἰς φούρνον (“wrap in gypsum and place in the oven”) τῇ φάρυγι ἐπίχεε ἕως ἂν ὑγιάνῃ (“pour down the throat until cured”).

63 *Cum plumis omnibus et pinnis* (“with all of its feathers and plumules”); *in uino ueteri* (“in old wine”).

direction. We do know with enough certainty that *Hipp. B.* 4.6 is a translation of Pelagonius,⁶⁴ therefore Chiron §965 came from a source that he shared with Pelagonius. And could not the *uolantes vs stantes* dilemma be explained by a palaeographic error from Latin, or by a conscious correction, without necessarily passing through Greek?⁶⁵ Perhaps the fact that the same two errors are found in Book 10 and in the *Hippiatrica* is sheer coincidence and not the result of one stemming from the other. Furthermore, for Hoppe's reasoning to stand the test, we would need to start by proving that *uolantes* was truly an error, which, to us, seems impossible. This would also imply that §965 would have to have been extracted from the common source mentioned above.

Do not be fooled by the title that claims Pelagonius is the inventor of the remedy:

Puluis Pelagoni apopiras.

Pelagonius' powder, drawn from experience.

First, this title simply demonstrates that this paragraph was reinserted into *Ars ueterinaria*, subsequent to first appearing in another compilation.⁶⁶ Secondly, the magic remedy (consisting of drinking the ashes of a bird cooked in the oven in a hermetically sealed clay vessel) is exceedingly ancient and dates back as early as the works of Pliny, who used this remedy with swallow hatchlings for throat infections and the lark for colon pain.⁶⁷ We find this remedy in Scribonius Largus, who substitutes the hatchlings with the ashes of deer antlers.⁶⁸ The most standard version, that is, with the lark, is found in Apsyrus, Marcellus the Empiricist, and Quintus Serenus.⁶⁹ As a final observation, Chiron's and Pelagonius' texts are the texts that most resemble this text written by Scribonius.

64 *Cum uino Afro* ("with African wine") is rendered in *M* as μετὰ ἀφροῦ ("with the foam") which is an obvious mistake.

65 Veg. *Mulom.* 1.17.15, who, on this point, seems to have preserved a version that is more faithful to Pelagonius' text than *R*, also written in participle form *stantem*, parallel to Chiron's *uolantes*, a *lectio facilior* involving birds.

66 Fischer (1980: XXV).

67 Plin. *Nat.* 30.34 and 30.62, as well as Cels. 4.7.5. The lark is a migrating bird like the swallow, which is why they were often associated with each other (Varro *Rust.* 2.1.27 and 3.5.6), both being a part of magical pharmacopeia: Plin. *Nat.* 29.128 recommends hatchlings for eye infections.

68 Scrib. Larg. 122.

69 Apsyrus *Hipp. Cant.* 30.5; Marcell. *Med.* 28.50 and 29.30; Ser. *Med.* 574–575.

Conclusion

This study shows that Pelagonius was not the direct source of Book 10 of the *MC*, but rather that the similarities between them can be explained by a common source, which would date back to the High Empire. It was probably originally written in Latin, even though the two supposed authors of Book 10, Apsyrtus and Hermeros, have Greek names. With this example alone, readers get an idea of the type of difficulties researchers encounter when studying Latin and Greek veterinary texts. It is very difficult to date them given that the authors of these texts remained relatively or completely unknown, like Hermeros—numerous authors consigned to oblivion as early as late antiquity when many texts were lost. Chiron's Book 10, which is considered to have been written later than the *MC*, could have been easily based on earlier sources, but added to the preceding texts at a later date, since Vegetius did not use this additional text. We believe it would have been attached at the end of the *MC* along with the passage on small livestock (whose author is also not credited), which immediately precedes it (§946–959) and begins with a long quotation from Columella.

In terms of the method used, we conducted a cross-examination of various stylistic elements, notably the particularities in vocabulary employed, with scientific data (i.e. the scientific level of Book 10)⁷⁰ and epigraphic data. Everything points to the High Empire as the period in which the book was written.

For the moment, we can only hypothesise about Claudius Hermeros, who is presented in Book 10's *explicit* as the author. We believe that Hermeros was either the author of a common source analysed here, which dates back to the High Empire (and it is during this period that the name Claudius Hermeros has been attested), or that this is the name of the author who used this common source to compose his own treatise. At any rate, this text postdates Celsus and Columella, whose influence is visible. Hermeros was likely an emancipated slave, but not necessarily Greek, on the grounds that Greek family names were often given to slaves, irrespective of their origin. He probably composed a treatise on ovines and equidae (*pecora*), in which he would have inserted excerpts from a book on small livestock (*oues, caprae*).⁷¹ What still remains to be examined is whether or not this ancient source of Book 10 is the same as the lost

70 We are aware that the assumption implied here, which served as our guide, is one of growing complexity and rigor within the hippiatric sciences in Rome between Cato's era (234–149 B.C.) and that of Vegetius (late fourth century A.D.).

71 Chiron 975, whose style is reminiscent of Catonian writing.

anonymous text found in parallel passages in Pelagonius and Vegetius, or even the source highlighted by J.N. Adams, which is common between Pelagonius and Eumelus.⁷²

Bibliography

- Adams, J.N. (1984), "Pelagonius, Eumelus and a Lost Latin Veterinary Writer," in: Sabbah (ed.), 7–32.
- (1991), "Pelagonius and Columella," *Antichthon* 25, 7–95.
- (1992), "The Origin and Meaning of Lat. *ueterinus*, *ueterinarius*," *Indogermanische Forschungen* 97, 70–95.
- (1995), *Pelagonius and Latin Veterinary Terminology in the Roman Empire*, Leiden/New York.
- André, J. (1985), *Les noms de plantes dans la Rome antique*, Paris.
- Armisen-Marchetti, M. (2005), "Demonstrare." *Voir et faire voir: forme de la démonstration à Rome* (Actes du colloque international de Toulouse, 18–20 novembre 2004), Toulouse.
- Boehm, I./Luccioni, P. (eds.) (2008), *Le médecin initié par l'animal. Animaux et médecine dans l'Antiquité grecque et latine* (Actes du colloque international tenu à la Maison de l'Orient et de la Méditerranée-Jean Pouilloux les 26 et 27 octobre 2006), Lyon.
- Cózar Marín, J.M. (2005), *Mulomedicina Chironis. Estudio filológico. Estudio crítico y edición del libro segundo de la Mulomedicina Chironis*, Ph.D. thesis, Barcelona.
- Fischer, K.-D. (1980), *Pelagonius. Ars ueterinaria*, Leipzig.
- (1985), "Probleme der Textgestaltung in der sogenannten *Mulomedicina Chironis*," in: Mazzini/Fusco (eds.), 255–277.
- (2009), "Bemerkungen zu den Autorennamen und zum Aufbau der *Mulomedicina Chironis* und anderer medizinischer Sammelwerke," in: Ortoleva/Petringa (eds.), 113–121.
- Georgoudi, S. (1990), *Des chevaux et des bœufs dans le monde grec. Réalités et représentations animalières à partir des livres 16 et 17 des "Géoponiques"*, Paris/Athens.
- Giaccherio, M. (1974), *Edictum Diocletiani et Collegarum de pretiis rerum uenialium*, 1. Edictum and 2. Imagines, Genoa.
- Gitton-Ripoll, V. (2005), "L'art de la démonstration chez les vétérinaires latins," in: Armisen-Marchetti (ed.), 333–349.

⁷² Adams (1984: 29) believes that this source may have also been shared by Pelagonius and the *MC*.

- (2008), "Chiron, le cheval-médecin, ou pourquoi Hippocrate s'appelle Hippocrate," in: Boehm/Luccioni (eds.), 211–234.
- (2009), "Traductions ou sources latines d'Apsyrthus contenues dans Pélagonius," in: Ortoleva/Petringa (eds.), 91–112.
- Hoppe, K. (1925), "Zur Chronologie der *Mulomedicina Chironis*," *Veterinärhistorische Mitteilungen* 5, 17–20.
- (1928), *Pelagoniusstudien* II "Pelagonius und die *Mulomedicina Chironis*," *Veterinärhistorische Mitteilungen* 4, 1–40.
- (1933), "Die Chironfrage," *Abhandlungen aus der Geschichte der Veterinärmedizin* 26, 35–46.
- Ihm, M. (1892), *Pelagonii artis ueterinariae quae extant*, Leipzig.
- Kroll, W. (1913), "Hermeros," *Paulys Real-Encyclopädie der classischen Altertumswissenschaft* 8, 736–738.
- Lommatzsch, E. (1903), *P. Vegeti Renati Digestorum artis mulomedicinae libri*, Leipzig.
- Mazzini, I./Fusco, F. (eds.) (1985), *I testi di medicina latini antichi. Problemi filologici e storici* (Atti del I convegno internazionale "I testi di medicina latini antichi," Macerata—S. Severino M., 26–28 aprile 1984), Macerata.
- Oder, E. (1901), *Claudii Hermeri Mulomedicina Chironis*, Leipzig.
- /Hoppe, K. (1924 and 1927), *Corpus Hippiatricorum Graecorum* (CHG), 1. Leipzig, 1924, 2. Leipzig, 1927.
- Ortoleva, V. (1998), "Un nuovo testimone frammentario di Pelagonio e alcune considerazioni sulla tradizione manoscritta e sul testo dell'*Ars ueterinaria*," *Res publica litterarum* 21, 13–44.
- /Petrina, M.R. (eds.) (2009), *La veterinaria antica e medievale. Testi greci, latini, arabi e romani* (Atti del II convegno internazionale, Catania, 3–5 ottobre 2007), Lugano.
- Sabbah, G. (1984), *Textes médicaux latins antiques*, Saint-Étienne.
- Sackmann, W. (1988), *Tiermedizinisches Schrifttum aus sieben Jahrhunderten (13.–19. Jh.) in der Universitätsbibliothek Basel*, Basel.
- (1993a), "Eine bisher unbekannte Handschrift der *Mulomedicina Chironis* aus der Basler Universitätsbibliothek," *Sudhoffs Archiv* 77, 117–120.
- (1993b), "Über eine bisher unbekannte Handschrift der *Mulomedicina Chironis* in der Basler Universitätsbibliothek," *Schweizer Archiv für Tierheilkunde* 135, 4–8.
- (1997), "500 Jahre *Mulomedicina Chironis Basiliensis*," *Schweizer Archiv für Tierheilkunde* 139, 21–23.
- Solin, H. (2003²), *Die griechischen Personennamen in Rom. Ein Namenbuch*, Berlin/New York, (1982¹).

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Corpus Galenicum: Bibliographie der galenischen und pseudogalenischen Werke zusammengestellt von Gerhard Fichtner, weitergeführt durch die Arbeitsstelle “Galen als Vermittler, Interpret und Vollender der antiken Medizin (*Corpus Medicorum Graecorum*)” der Berlin-Brandenburgischen Akademie der Wissenschaften. Erweiterte und verbesserte Ausgabe 2012/12.

English titles: Hankinson, R.J., *The Cambridge Companion to Galen*, Cambridge 2008.

For modern editions: <http://galen.bbaw.de/epubl/online/editionen.html>

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<i>Hesychius grammaticus</i>		“Galen als Vermittler, Interpret und	
v 209	284n50	Vollender der antiken Medizin (<i>Corpus</i>	
Hieronymus Stridonius		<i>Medicorum Graecorum</i>)” der	
<i>Aduersus Iouinianum</i> (Against Jovinian)		Berlin-Brandenburgischen Akademie der	
2.11	84	Wissenschaften. Erweiterte und	
<i>Commentarii in Amos prophetam</i>		verbesserte Ausgabe 2013/02.	
(<i>Commentaries on the Prophet Amos</i>)		English titles: taken from the volumes of the	
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2.11	89	Jones, W.H.S (ed. and transl.), <i>Hippocrates</i> ,	
<i>Commentarii in prophetas minores</i>		vol. II, London/Cambridge MA, 1923,	
(<i>Commentaries on the Minor Prophets</i>)		pp. lviii–lxiii.	
2.5	83n8	For modern editions: http://galen.bbaw.de/epubl/online/editionen.html	
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Inscriptions

L'Année épigraphique. 1888–

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<i>AE</i> 1969/70, 291	46n13
<i>AE</i> 1990, 670	47n20

Corpus Epistolarum Latinarum, papyris tabulis ostracis servatarum, ed. P. Cugusi, 3 vols., Florence 1992 and 2002

<i>CEL</i> 14	99
<i>CEL</i> 56	99n31
<i>CEL</i> 57	99n31
<i>CEL</i> 204	100n32

Corpus Inscriptionum Graecarum. 1828–1877

<i>CIG</i> 4766	49n38
<i>CIG</i> 5117	47n20

Corpus Inscriptionum Latinarum, consilio et auctoritate Academiae litterarum regiae Borussicae editum. 1863–

<i>CIL</i> 3.3583	51n46
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Inscriptiones Graecae. 1903–

<i>IG</i> 14.2547	46n13
-------------------	-------

Inscriptions grecques et latines de la Syrie.

1929–	
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<i>O. Claud.</i> 4.698 (inv. 1132)	100
<i>O. Claud.</i> 4.699 (inv. 7284)	100

Abbreviations:

CPL = *Corpus Papyrorum Latinarum*,
ed. R. Cavenaile. Wiesbaden 1958
*MP*³ = *Mertens-Pack*³. *Catalogue des papyrus
littéraires grecs et latins*. On line: [http://
promethee.philo.ulg.ac.be/cedopal/](http://promethee.philo.ulg.ac.be/cedopal/)
PGM = *Papyri Graecae Magicae*, ed.
K. Preisendanz, 2 vols. Leipzig-Berlin
1928, 1931

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